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Campus Notes

Student Society of Industrial Engineers

The purpose of the S. S. I. E. is to discuss Industrial Engineering problems, to promote Industrial Engineering spirit, and to develop a close relationship among students and faculty members. To carry out the purpose, several dinner meetings are held each quarter which are always well attended by the members. Speakers are secured for the meetings among the industrial leaders who discuss problems of an Industrial Engineering nature with the Society.

Besides the regular meetings, a smoker is held in the autumn quarter, a party-dance in the winter quarter and a picnic in the spring.

The society enters strongly into campus activities. They have teams competing during the year in touch football, basketball, baseball, volleyball, and bowling. A debating team is preparing for action under the leadership of John Sandfort. A committee has been named to prepare a float for Engineers' Day.

The officers are elected at the end of each winter quarter. Those of the past year were: Robert Bilikam, president; Robert Briggs, secretary, and Fred Wagner, treasurer. Dr. Paul Lehozky is faculty adviser.

Texnikoi

At the last meeting of Texnikoi, it was decided to hold a dinner meeting every other week for the rest of this quarter. The members also discussed the organizing of chapters in other universities, but nothing has been decided definitely yet.

Keramos

At the last meeting of Keramos, held January 25, it was decided to mount cobalt stain trials on which the group has been working, and send them to the Keramos exhibit, held in conjunction with the American Ceramical Society Convention at Cincinnati.



The society plans to continue its work on cobalt stains, and to present a paper on it at the Keramos convention.

American Institute of Chemical Engineers

Seventy chemical engineering students heard Professor James R. Withrow speak January 30 on the National Meeting of the American Institute of Chemical Engineers and Chemical Exposition at New York.

Professor Withrow was presented with the trophy won by the touch football team of the A. I. Ch. E., Student Branch.

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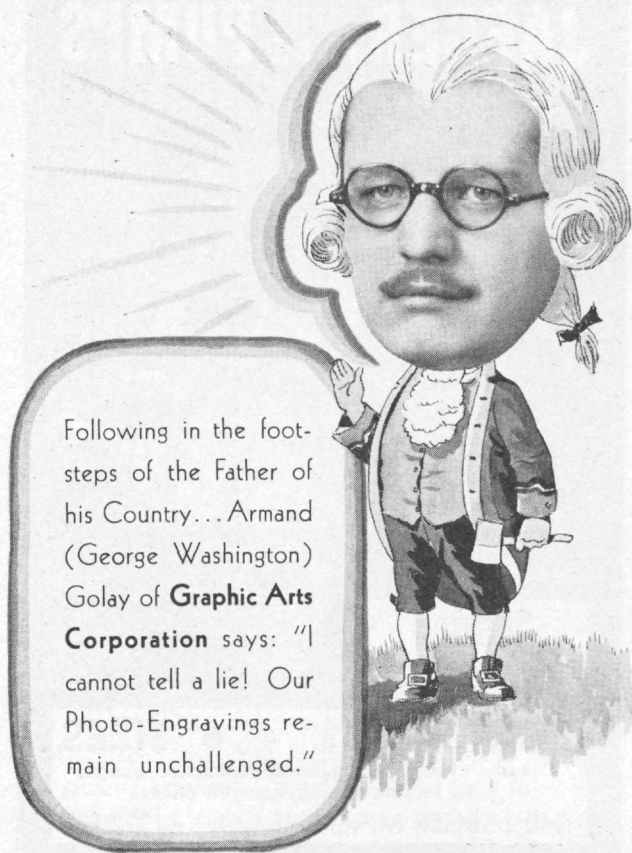
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Eta Kappa Nu

The Ohio State chapter of Eta Kappa Nu won the Chapter Merit Award for the past year. This award, which is given each year to the outstanding chapter, is awarded by the New York Alumni Chapter for the purpose of stimulating more interest in chapter activities. In making the award, the value to the chapter members, to the national association, to the University, and to the department are all considered.



Following are some of the achievements and activities for which this chapter received the award: Giving a handbook to the sophomore have the outstanding scholarship, holding regular meetings, preparing articles for the **OHIO STATE ENGINEER**, having frequent social functions, winning the cup for the best float last Engineers' Day, having a club room last year, winning departmental debate cup, using the faculty advisory system, having an annual smoker, and having an aid fund to help pledges, members, or alumni.

American Society of Civil Engineers

The January meeting of the student branch of the American Society of Civil Engineers was a dinner meeting held in Pomerene hall on the 24th. A large group enjoyed the evening. Few of the sophomore Civils are attending these meetings but they are urged to do so.

On Monday night, February 5, the Civils played the Industrial Engineers in basketball and were on the small end of a 12 to 9 score.

Honors for Electricals

Based on a point hour ratio of 3.0 or above during the last quarter of residence, thirteen members of the junior and senior Electrical Engineering classes, because of the excellence of their work during the fall quarter, 1933, have been placed on the honors list of the Department of Electrical Engineering.

The seniors in this group are: Creston F. Boyce, Arthur J. Ross, Paul W. James, J. Henry Schneider, Harold P. Sherer, and Robert B. Beetham.

The Juniors who were honored are Elmer E. Goehring, Shirley B. Cutlip, Edward J. Faehnle, Clarence M. Foraker, George H. Link, Edward J. Schuster, Luther J. Weber.

Metallurgical Engineering

Two of the junior and senior students, Harold Lemke and Robert Clevenger, are working part time at the Battelle Institute.

Archie R. Stevenson (B. Met. E., 1931, and M. Sc., 1932) has been employed by the Republic Steel Company of Massillon, Ohio.

And Its Not Out

The dollar may be down, but it won't find any of its friends highhatting it.
—Cincinnati Enquirer.

Industrial Engineering

The Department of Industrial Engineering is sponsoring a Foundry Conference and Exhibit, to be held on April 5 and 6 in the Industrial Engineering Building.

Technical and practical discussion sessions will be a joint program of the University and a regional meeting of the American Foundrymen's Association. Notable officers of the Association and other well known leaders in foundry practice will present technical papers and participate in the discussion sessions.

Practical demonstrations of tests in the Engineering Experiment Station, and demonstrations of furnaces at the Experiment Station and at the foundry will be on the program.

The Engineering Experiment Station is cooperating with the Industrial Engineering Department in promoting the Conference.

England Now Has Gasoline Made From Coal

British motorists may now enjoy the novelty of buying gasoline made from coal, which has just been placed on public sale. The event marks the beginning of a great chemical industry by which England hopes to put 65,000 men to work and to end her dependence upon imported petroleum. A monster plant now rising at Billingham-on-Tees will transform 1,000 tons of coal daily into the synthetic fuel, using a process already in successful operation in a smaller experimental plant at the same site. In this process, known as hydrogenation, powdered coal is mixed with heavy oil and the resulting paste is fed, with hydrogen gas, to a converter. The mixture undergoes a chemical transformation under tremendous heat and pressure, yielding a mixture of hydrocarbons from which pure gasoline is recovered by distillation. Another of the products is Diesel oil, which may also be changed into gasoline by an additional conversion treatment with hydrogen. Both the hydrogen and heavy oil used in the process are obtained in the course of producing the gasoline, leaving coal as the chief raw material required. Results of production indicate that approximately a gallon of gasoline may be obtained from twenty-four pounds of coal, and the large-scale plant under construction should show an output of 80,000 gallons of gasoline a day.

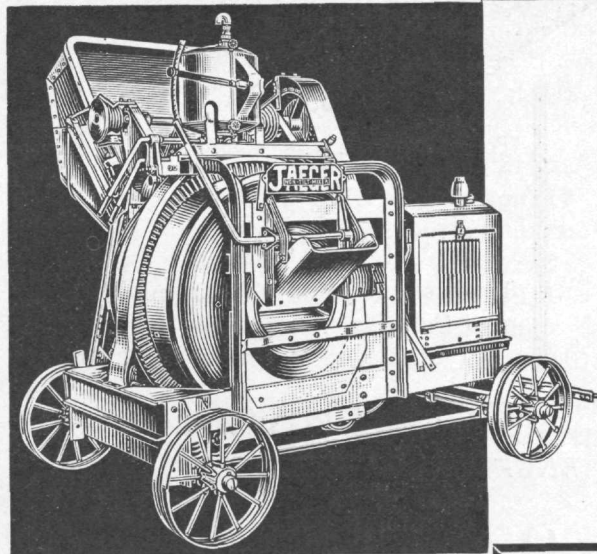
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(Eat, drink, and be merry)

OBJECT

To determine the coefficient of taste.

METHOD

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CONCLUSIONS

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Sodium Vapor Street Lights

The first ornamental type of installation of sodium vapor lamps for operation on alternating current has been recently dedicated along Park Avenue in Port Jervis, New York.

This new street is approximately one-half mile in length, thirty feet wide, and cuts through the side of Mount William on the outskirts of Port Jervis, providing a gateway to the city and a new entrance to the Delaware valley from the East. The street is city-owned, including the ornamental standards and feeder circuits.

Steel standards are spaced 125 feet apart along the outer edge of the roadway, about 6 feet from the curb line and on these are mounted twenty-five sodium vapor lamps some 14 feet above the ground. Nominally rated at 4000 lumens, the lamps are enclosed in heat-insulating vacuum cylinders resembling "thermos bottles." This in turn is surrounded by Bi-lux Bowl reflectors. Special Gillinder outer enclosing globes, some 18 inches in diameter and consisting of light density, opalescent glass, complete the post-top equipment.

Within the base of each post is mounted a special Westinghouse transformer which operates on a 6.6 ampere series primary circuit which delivers, through the four-wire secondaries up the posts, the two voltages required for the operation to each sodium lamp.

The series circuit supplying this installation is part of a straight A.C. circuit now feeding other series of Mazda filament lamps from a standard automatic tub transformer. A clock switch throws in the lamps at dusk and they burn until dawn.

In full operation the power consumed per lamp is slightly under 100 watts. The efficiency of each lamp, including the transformer and secondary wiring, is in the neighborhood of 40 lumens per watt. This output efficiency is almost twice that of the corresponding metallic filament lamp.

The measured foot-candles of the sodium lighting is not as important as the net seeing ability afforded vehicular traffic at night.

A higher degree of visibility is obtained than is usually experienced, due partially to the lack of glare and more especially to the monochromatic quality of light. Even under the low intensities prevailing the details of vehicles

and all roadside objects seem clear cut and visual acuity seems sharpened.

When inaugurating trial installations with sodium lamps it was considered preferable to plan them primarily for interurban highways or for routes handling vehicular traffic and where pedestrians seldom appear. This choice was particularly based upon the question as to whether the monochromatic yellow color might prove unfavorable to human complexions. Where the sodium lighting intensities are low it is quite likely that this red-deficient color may be so diluted as to be unobjectionable.

Since certain patents were received on the design of sodium vapor lamps by Westinghouse in 1916 they have been under development. Since then Engineers have been handicapped by the lack of a glass which would withstand the deteriorating effects of the chemical reactions brought about by the glowing sodium vapor. Discovery of such a glass this year climaxed the sodium vapor lamp into a design that would serve as a practical light source.

The Port Jervis installation is not only an important trial of an ornamental sodium lamps system, but it is unique in that the Westinghouse sodium lamps system operates on an alternating current supply.

The higher operating efficiency of sodium vapor lamps may point to the requirement of less copper, higher primary voltages, and a minimum of future servicing attention, and thus may in time constitute a real economic saving. The noticeable improvement in seeing conditions on the highway makes the sodium lamp an important development.

Modern Pyramid Builders

American engineers are not thinking of building such a pyramid as one like the Great Pyramid of Cheops, but they have often been asked how long it would take, how much would it cost, would they recommend the same structural design, and many such questions. Three prominent New York architects and builders have taken it upon themselves and have made the necessary calculations. If stone blocks like those used in the original structure were to be used it would be an engineering project of five and a half years. The cost would be \$156,000,000. The labor needed would total 2,250,000 man-days, each of these units representing the work that one laborer could accomplish in one day. According to these figures modern machinery would cut the labor ninety-nine per cent because historical accounts estimates that it took 180,000,000 man-days to construct the Great Pyramid. These architects, however, state that they could produce a pyramid at much greater saving by using a skeleton of reinforced concrete faced with limestone. This would cost \$15,000,000 and require 750,000 man-days.

—*Popular Science.*

Then there was the Scotsman who crossed his bees with lightning bugs so they could work at night.

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The Students and Faculty of the Engineering College

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