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CAMPUS NOTES

DEPARTMENT OF ELECTRICAL ENGINEERING

The department of Electrical Engineering has announced the following list of students who have received honors. These honors are based upon a point ratio of three or above reached during the spring or summer quarter. Honor men receive certain special considerations in the Department of Electrical Engineering such as greater freedom in making substitutions, permission to carry special reading or laboratory courses, and to do work "in absentia."

Seniors
 Newhouse, R. C.
 Peters, Leo
 Peterson, W. E.
 Higgins, E. A.
 Hively, M. W.
 Bayer, C. F.
 Randall, G. E.
 Knox, R. E.
 Shipley, E. D.
 Ashmead, H. E.
 Robinson, E. R.

Juniors
 Rosenfeld, M.
 Sprague, V. G.
 Moser, R. C.
 Franklin, W. S.
 Jay, S. P.
 Jagusch, H. R.
 Ackerman, H. S.
 Carter, H. T.
 Hale, J. A.
 North, L. C.
 Stephens, F. M.
 Lough, S. J.
 Hahn, P. T.
 Stanberry, F. M.
 Cook, C. A.
 Wagner, C. R.

PROSPECTORS' CLUB MEETS

The Prospectors' Club, student organization of the Department of Mine Engineering, held its initial meeting of the year on October 17, in Lord Hall. The meeting was held to discuss plans for the coming year and to elect officers. A secretary-treasurer was elected; also a junior representative to Engineers' Council.

Mr. E. J. Brown, a graduate student in mine engineering, spoke to the group on the mining and metallurgical treatment of platinum. He gave an account of the present economic importance of the element as a problem of international importance in diplomatic circles.

The Prospectors' Club meets on the second Tuesday of each month. A speaker will be obtained for each meeting. An invitation is extended to all freshman and sophomore students in mining to attend the meetings.

JOINT MEETING A. I. M. M. E. AND PROSPECTORS' CLUB

A joint meeting of the Student Branch of the American Institute of Mining and Metallurgical Engineers and the Prospectors' Club was held November 6, at Lord Hall.

A motion picture was shown of the construction of the Cascade Tunnel in the American Rockies. The picture gave a comprehensive description of the amount of work done and the difficulties encountered in drilling the tunnel through 7.91 miles of limestone. The film was furnished by the Du Pont Company.

Following the showing of the film, William Poor gave an interesting lecture on the operation of the U. S. Smelting Company in the Alaskan gold fields. He described the methods used in placer

mining and climatic conditions in the Fairbanks district. Mr. Poor graduated from the Mine Engineering Department in 1926. He spent his first two years after graduation in Alaska, but is now in Columbus with the Columbia Engineering and Management Company.

This was the first joint meeting of the two societies this year. It was well attended by students and faculty members of both departments. Similar meeting will be held throughout the year and all students, especially those in mining and metallurgy, are urged to attend.

DEPARTMENT OF CHEMICAL ENGINEERING

The student branch of the American Institute of Chemical Engineers had a general get-together meeting on Friday, October 7, at the Cadet Officers' Club Room. The purpose of this meeting was to get acquainted and to interest the Sophomore Chemical Engineers in the society.

On Wednesday evening, October 24, the Chemical Engineers had the pleasure of hearing Mr. Joseph Koffolt, '24, speak on "Fibers and Rayon." Mr. Koffolt was formerly chemical engineer with The Shenandoah Rayon Company, Utica, N. Y., and with The Industrial Fibers Company, Cleveland, Ohio. He very clearly outlined the various methods of making rayon and pointed out where several industries have failed because of their lack of understanding of the market demands and economics, and the chemistry and engineering involved in the manufacture of rayon. Every rayon concern should have a good chemical engineer in order to solve the above problems.

Mr. D. D. Huffman was elected as junior representative to the Engineering Council. Mr. E. B. Layfield is the senior representative.

The chemical engineers have a team entered in the indoor baseball intramurals. Mr. J. Hoelscher is in charge of all the intramural teams representing this society and expects good results.

"The Deflection of a Round-End Strut Caused by a Transverse Force" will be the subject of a paper to be presented by James E. Boyd, Professor of Mechanics, at the annual meetings of the American Society of Mechanical Engineering in New York, December 3-7.

DEPARTMENT OF MECHANICAL ENGINEERING

AERONAUTICS TO BE OFFERED IN SPRING

Because of the growing interest in aviation and the establishment of commercial passenger service in the United States and in answer to a popular demand from a group of students, it has been decided to offer a course in aeronautics at Ohio State.

As aeronautical engineering is a highly specialized science and requires a large and expensive outlay of equipment, this can be only a very general course, for the present.

A three-hour course, "Air-craft Construction and Operation," will be offered in the Spring Quarter of 1929 by Professor K. W. Stinson of the

Department of Mechanical Engineering, as an elective for seniors, the prerequisite being Mechanics 603.

It will embrace an analytical and descriptive study of the modern aeroplane and dirigible.

At present the University possesses a warplane and other equipment valued at about \$25,000, which are on exhibition in the Robinson Laboratory. It is hoped that in the future Ohio State can compete with some of the other colleges and universities offering complete courses in this growing field.

Anyone interested in the above-mentioned course is advised to consult Professor Stinson.

SOCIETY OF AUTOMOTIVE ENGINEERS

On Thursday evening, November 1, the Student Society of Automotive Engineers held a dinner meeting in Pomerene Hall.

Mr. J. E. Shriver, president of the Student Society, welcomed the new members and visitors, briefly outlining the history, purpose, and plans for the future of the local group, before introducing the speaker of the evening, Professor John Younger, of the Department of Industrial Engineering.

Professor Younger gave an interesting illustrated talk on "How Ford Can Produce His Car at Such a Low Cost." "There are two sides to manufacturing methods, the processes and the economies, which must be studied in detail before any information can be obtained on cost cutting," said Professor Younger.

"Henry Ford has attained low costs through the study of costs at their sources. The concentration of a few models, resulting in the standardization of parts, is a factor which not only lowers costs but improves quality. The Ford factory is a multitude of small shops, each doing a particular standardized job. For example, the holes for the wrist pins in the pistons and connecting rods are drilled in separate distinct shops. The glass plant is a separate shop, although directly adjacent to the steel plant.

"Ford does not manufacture all of the parts for every car. He does make some of every piece of equipment.

"The conveyor system in the Ford plant is probably the greatest factor in lowering the cost of production. One ordinarily thinks of a conveyor as merely a handler of material, but it is fundamentally more than that, it is actually a 'pacesetter.'"

Subdividing work improves quality, and jobs can be assigned to those most capable or best fitted for particular operations. The timer of the old Model "T" Ford required 48 different movements from the person who assembled it. After the conveyor system was installed 48 girls, each doing one operation, cut the time of assembly materially.

Ford trains unskilled light workers for their jobs in six hours. This is possible through the conveyor system.

The highest efficiency of workers can be attained only by supplying them with the proper number of articles at the proper time. It has been found that the average worker accomplishes most when given a required job in a required time. An excess of time is as bad as an excess of material. The conveyor speed is set to allow each worker to

have the proper amount of material at the proper time. Even the Ford ships and the Detroit, Toledo & Ironton Railroad are considered a part of the conveyor system, as they handle material definitely scheduled with the rest of the plant.

Ford does not believe in profit from unfinished products. The only profit comes from the completed car. All raw material is in rapid motion. It is known that there is a material "turnover" fifty times a year, while the average for most manufacturers is only eighteen times. The only material carried in stock is iron ore during the winter season when navigation on the lakes is closed.

A completely machined casting can be delivered to the shipping dock in just thirty hours from the time the pig iron was taken from the blast furnace, a record which has never been equaled on large-scale production. This saving in time applies a saving toward cost reduction.

In the upkeep of machine tools in the Ford plant, the factor of obsolescence is more important than wear. When the time to do a particular job with a particular machine exceeds the Ford standard time, the machine is immediately withdrawn from service and completely overhauled, and it may be safely stated that the machine has been driven for all it was worth.

Another factor which reduces cost is the principle of simulation, or the idea of doing two or more processes simultaneously. When a man must place an article in a fixture by hand, set it up in a machine, stand idle until it is finished, then let the machine be idle until the next fixture is ready, considerable time is lost to both the man and the machine. The principle of simulation would provide two machines, so that the man and one machine would be working all the time.

Under these principles Henry Ford has cut the cost of manufacture more than any other organization or individual in the world and at the same time has not sacrificed quality.

NEWS OF THE LOCAL STUDENT BRANCH OF THE A. S. M. E.

The local branch voted to have Donald Rice act as intramural manager, and Hayard Gay as junior representative on Engineers' Council. One dinner meeting each quarter was also decided upon.

On October 12, Mr. Homer M. Faust, B.M.E., '23, gave a film lecture on "Consolidation Clean Coal," to the local members and to the Engineering College. In the evening he addressed the Senior Branch of the A. S. M. E. Smoke abatement entered largely into his discussions.

Mr. H. A. Ingram of the Babcock and Wilcox Company presented a film lecture which was of much interest, on October 19. Senior members of the local branch are giving their experiences in the industrial world in the meetings of October 26 and November 2. On November 9, Mr. John M. Fitzgerald will be the main speaker. He is past president of the Western Maryland Railroad and a member of the American Institute of Mining and Metallurgical Engineers. He promises to make this meeting worth while.

Bill: "I hear that your wife presented you with triplets. Are you going to pass the cigars?"

Don: "No! I'm going to pass the hat."