

Egloff Speaks On Oil Well Drilling

Dr. Gustav Egloff spoke before the members of the A. S. M. E. at the meeting last Friday. He was acquired as a speaker largely through the efforts of Professor Roesch and R. W. Suman.

In his talk he discussed modern methods of locating oil used at present compared to wild cat methods used in the past. He pointed out that in modern drilling work the shaft is drilled perpendicular to the surface of the earth, while in the past many times the drill assumed a somewhat different direction which often caused disastrous results.

The oil industry requires the combined wits of a physicist, chemist and an engineer to cope with the variable problems of handling the oil from the well until it is presented on the market. In an industry where ninety billion dollars a year is at stake, a saving of a small fraction of one per cent is quite an item.

Large Field Open

Everything to be known in the refining of oil is not known at present and a large field is open for improvement of the various processes and operations. The field open in most cases includes only the improvement of particular operations or processes and not complete revision of the industry as has been the case in past years.

Refineries receive most of their crude oil from pipe lines leading direct from the oil fields, and a steady pressure is maintained by pumping stations at intervals along the line. The maintaining of a constant pressure along the line when the viscosity of the oil changes is a factor and was accomplished by the ingenious mind of an engineer who placed a pumping station on rail and moved this along the line so that the change of pressure was overcome.

Trying to Eliminate Losses

In the refining of crude oil into gasoline and its many products one tenth of the actual value of the crude oil is used in the process of refining, which is quite a large factor, and it is hoped this cost will be cut down in the near future.

Dr. Egloff outlined the fact that he interviewed many college men for positions and that a lack of keeping up in their respective branch of work was noticed by him. According to him, the engineer actually begins his studying when he graduates and that he must keep up with new methods of engineering and should not be discouraged if he does not get a position until a year after he graduates.

Students at Columbia Revive Old Publication

Students in the Columbia School of Journalism under the direction of Dean Carl W. Ackerman, as editor, have begun publication of a bi-monthly newspaper, "The Independent Journal," copied in style and makeup from the paper of the same name which was published in the United States from 1783 to 1788 and became famous.

It was famous because it contained the column of editorials written by Alexander Hamilton, John Hay, and James Madison called "The Federalist."

Follow These Rules and Become an Expert Bridge Player

1. Pick up cards as dealt. You will be ready to bid ahead of the others.
2. When you have a poor hand, signal immediately by saying, "Who the heck dealt this mess?"
3. If you get a poor partner, keep score yourself; you've got to have some advantage.
4. Never hurry. Try several cards on a trick until you are sure which one looks best.
5. Occasionally ask what is trump. This will show you are interested in the game.
6. Trump your partner's ace — and cinch the trick.
7. Eat chocolate caramels or other adhesive candy while playing. It keeps the cards from skidding.
8. After the third round lay your hand on the table and claim the rest of the tricks; you may not have them, but it's much easier to play with all the cards on the table.

Elm Bark.

Armour Quartet Is Feature of Banquet

An important part in the program given in conjunction with the annual banquet held by the West Side Bowling Club, was taken by the Armour Quartet last Saturday.

The members of the Armour Quartet who furnished the musical entertainment were Armand Hahn, Alexander Kulpak, Marshall Nystrom, and Frederick Smith. Theodore Wallischlaeger was the accompanist.

A week ago today this Quartet gave a short musicale for the Mother's Club of the Beta Psi Fraternity at the Beta Psi house.

New Slide Rule Called Trigonograph Devised

Many types of slide rules have been offered to the student but several advantages are claimed for a new one known as the Trigonograph. It consists of a triangle of paper or celluloid with a slide which rotates about one of the angles.

The new device is a function table as well as a calculator, for it gives values of trigonometric functions to three decimal places. A single setting determines all the functions of a triangle, and many applied mechanic's problems can be solved directly.

The Trigonograph is especially useful to a person studying trigonometry, as it gives a visual interpretation of various functions.

Denver University freshmen are forcibly ejected from all football and basketball games if they are discovered bringing dates with them.

Students in Switzerland get a double dose of exams. They must pass them at the beginning of the school year and again at the close.

Mr. Henry Penn Addresses W. S. E.

Henry Penn, a brother of Dean Penn and a representative from the American Institute of Steel Construction was the interesting speaker at the W. S. E. meeting last Friday. He talked principally on the value of steel in the construction of building material. The consumption of steel in the United States in 1929 was the equivalent of supplying three and one-half pounds of the metal per person per day. It has increased in recent years but sufficient data has not been obtained to determine the final statistics. The speaker drew a parallel with the consumption of steel and the progress of a nation since the dawn of history. China was compared with United States and it was shown that even though our country is not very old, our progress has surpassed that of China because of our huge consumption of steel compared to China.

History of man's development has been divided into three stages: stone, bronze, and steel. Iron was used before the time of Caesar; but progress was restricted to the use of iron because of the difficulty in reaching high temperatures. The methods of hardening iron were the same as those we use today. Barbarian tribes had other methods of tempering iron. One method was to heat the iron and plunge it into a slave; the process being repeated six times. Its temper was tested by bending it about a slave's waist; and if it sprung back into shape it was satisfactory.

Iron was first cast in Europe in 1458. Progress in iron-craft was slow and it was not until 1858 that the Bessemer process was invented. This led into a greater demand for steel which led into the development of the Open Hearth process, a cheaper method.

Mr. Penn then discussed steel in

Hold Semi-Annual Music Smoker

Members of the Armour Tech Musical Clubs had a very enjoyable evening at the semi-annual smoker held at Theta Xi fraternity house on Wednesday, November 29.

The meeting was devoted to the playing of cards and also ping-pong. There was an abundance of cigars and cigarettes for those who smoked.

The regular meeting, presided over by Clarence Clarkson, president of the organization, consisted of interesting and humorous speeches by Deans Penn and Heald, Professor Leigh, faculty sponsor, and Mr. Erickson, director of the musical clubs. The pledges of Pi Nu Epsilon, honorary musical fraternity, also entertained those present by the singing of the "Armour Fight Song" and the "Alma Mater" song. The audience joined in the singing. After this a picture of the group was taken.

Refreshments in the form of sandwiches and coffee were served by the Pi Nu Epsilon pledges and the food disappeared rapidly even though turkey with all of trimmings was to be eaten on the next day which was Thanksgiving.

The meeting was brought to a close with the singing of the "Armour Fight Song."

modern housing. He brought out the fact that it has become important in its adaptability as a fire-proofing material. In the past it has been assumed that, on heating, the carrying capacity of steel is reduced. Experiments prove that this is not the case, for steel actually becomes stronger when heated to 700° F. Between 700° F. and 1,000° F. its carrying capacity falls to normal. On further heating its carrying capacity is greatly lessened.

S. P. E. E. Publishes Talk by Hotchkiss

(Continued from page 1)

appeal to the instinct of workmanship it has laid excellent foundations upon which to build cultural as well as professional education adapted to the changing society which he sees ahead of the present generation of students.

Adaptation Is Essential

Dr. Hotchkiss then develops the inevitability of further important advances in technology, and urges the necessity for education to take account of the "human stresses and strains" involved in adapting society to technical change. "The outstanding cultural problem with which engineering education is concerned," he states, "is to render maximum aid in balancing social and technical progress."

To accomplish this in a society whose parts are as closely interwoven as in ours, competent engineers must have a considerable knowledge of the fields upon which their own fields impinge. The selection and revision of curricula toward this objective bring the natural difficulties of breaking from tradition, but, Dr. Hotchkiss declares, these obstacles are largely psychological and can be overcome.

He then develops in some detail the changes in curricula at Armour Institute which have since been effected, the integration of freshman studies, the reorganization of shop courses, and the introduction of

study in business and social subjects. Speaking of teaching in engineering subjects, he says that it is not only possible but desirable to follow those subjects which are expected to contribute toward professional competence into their business and social ramifications. In this way engineering teaching can still further enrich the personality of the student, enlarge his appreciation, stimulate his intellectual curiosity, and develop his capacity for thinking both accurately and comprehensively upon the subjects with which engineers are occupied.

The relation between general and professional education, Dr. Hotchkiss concludes, has been confused by the persistence of the idea that "cultural" and "practical" denote conflicting aims in education. Any course of study, he maintains, is cultural if taught and studied in such a way as to develop the student's mental power and build up his personality, and any course so taught and so studied is practical no matter how indirect its application may be. Hard-boiled, low-brow engineering education must be thus regarded and developed as an approach to culture if it is to fulfill its most vital function in the society of the future.

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