On the opposite page are scenes from the petroleum, mechanical and natural-gas engineering laboratories. William H. Carson, right, is director of all three schools. Shown in the scenes are: 1. P.E. building with pumping unit and oil well Christmas Tree in foreground; 2. unit for determining anti-knock qualities of gasoline; 3. general view of production and natural-gas laboratories; 4. oil well drilling slush pump with instruments in place; 5. a 450-horsepower 12-cylinder Curtiss airplane engine; 6. general view of internal combustion engine laboratory; 7. oil-gas lift laboratory; 8. a corner of the steam engineering laboratory; 9. insulated and uninsulated country type boilers of the M.E. laboratory.

Petroleum Engineering

By W. H. CARSON, Acting Director

The school of petroleum engineering, University of Oklahoma, has had a world-wide reputation almost from the time of its inception. Its reputation in the early days can be attributed to three things: (1) Flow characteristics of saturated and unsaturated crude oils through unconsolidated sands; (2) gas analyses of flow samples taken from primary and secondary oil and gas separators at various temperatures and back-pressures; (3) efficiencies of acid treatment of calcareous formations under various conditions of acid concentration, pressure, and quality of inhibiting agents; and (4) oil well plunger pump efficiencies under various conditions of plunger and pump valve design, plunger clearance, oil valve design, plunger clearance, oil temperature, pump submergence, sucker rod and plunger load, and length and frequency of plunger stroke. The latter problem, which has been made possible by the donation of a Lufkin electric motor-driven herringbone reduction-gear pump unit, cannot be completed in detail until an experimental well is drilled and cased to approximately 1000 feet.

Graduate students and seniors who are majoring in refinery technology in the petroleum engineering school are carrying out research work under the direction of Dr. R. L. Huntington on several problems which are of interest to the industry.

(1) The study of entrainment in oil absorbers is being continued this year on a semi-commercial scale. The effect of temperature, liquid rates, surface tension, and viscosity are being investigated in addition to plate spacing and vapor velocity.

(2) Heat transfer coefficients are being obtained for condensing steam, and several pure hydrocarbons on a vertical water cooled tube. The apparatus is unique in that the condensation can be observed through a large Pyrex tube which serves as the outer jacket.

(3) A comparative study is being made of flash and differential flash vaporization processes for the separation of gas from crude oil. It has been found that differential separation gives a higher gravity crude oil, but there are little quantitative laboratory data to show the various relationships for different temperatures, pressures, and gas-oil ratios.

A development research program in connection with the rotary drilling mud fluid is now under way at the University of Oklahoma. Investigations are being directed by L. F. Bingham, member of the petroleum engineering faculty. The importance of rotary drilling muds has increased rapidly with the advent of modern rotary drilling methods. Mud fluids now are recognized as one of the most important engineering problems to be dealt with in connection with development work. The aim of the investigators at the University is to standardize methods for quantitatively determining and controlling mud characteristics. The research program at the University has met with the finest response from the industry.

(Turn to page 152, please)
and models of famous shirts, with pictures and pamphlets galore.

The museum is accepting loans of collections from persons as well as gifts. Each item is carefully labelled, classified and placed behind the glass of the locked cases.

Mrs. Virgil Browne was appointed temporary chairman for formation of the society at this week's meeting. A constitution and by-laws will be drawn and officers elected on February 14. Those on the constitution committee include: Mrs. Edward Pallman, chairman; Mrs. S. A. Wilkinson, Mrs. J. E. B. Wilson, Miss Flora New, Mrs. J. D. Smith, Mrs. Edgar Brown, Mrs. Pearl Scales and Mrs. Smith.

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Clubs with representatives at the first meeting included: Kappa Kappa Iota, Kappa Kappa Psi, Phi Beta Kappa, Rotarian Arms, Metropolitan Study club, En Evan, Keramic Art, Writers, Kappa Kappa Iota, Rotary Ann, Town club and the Oklahoma City Geological society.

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The Sooner Magazine

March

The future of architecture

Continued from page 130)

The company's news organ, the Real Silk News, recently said of Jenkins:

"Roy's work has been a most consistent one of advancement year after year. Each year he has enhanced his reputation not only from his work but also from his personal sales. Roy has been in Real Silk seven and a half years, was the first man to be appointed a district supervisor while still in school. He had the model school at the University of Oklahoma in 1931 and at Stanford university, California, in 1933.

He was a national college trip to mill winner supplier... Atoka... and... a young lawyer. He defeated three farmers for the seat... and Atoka is an agricultural county...

We now have forty-five student members of Mining and Metallurgical Engineers. At the January meeting the students voted to be-