ENGINEERING

## French Coal—to—Gas Trial

FRENCH experimental work in converting coal to gas, without removal of the mineral from the underground seams in which it occurs in nature, is to be reviewed at the meeting this month of the United Nations Scientific Conference on the Conservation and Utilization of Resources at Lake Success, N. Y., by Prof. Doumenc of the St. Etienne, France, School of Mining.

This international organization is known as UNSCCUR for short, and during its coming meeting, which begins Aug. 17, some 500 scientific papers will be presented by outstanding scientists and engineers from 70 countries in all parts of the world.

The gasification of underground coal has been undertaken in past years in several parts of the world, notably in Russia and the United States. Satisfactory and economical commercial processes have not yet been developed although experimental work gives every promise for the early future. Gases obtained can be used for firing boilers or converted into synthetic liquid fuels such as gasoline and heating oil.

The French work is being carried out in the Djerada anthracite field in Morocco.

This anthracite contains only five percent of volatile matter and the problem is largely to convert the coal into carbon monoxide. Exceptionally favorable conditions exist for the experiment in the site selected because of the outcropping panel, the almost vertical dip of the seam, and the absence of flooding. On the other hand the composition of the coal and the thinness of the seams mean that the scheme will have to be planned with great care.

At the same meeting an American experiment in gasifying coal in place under ground will be discussed by M. H. Fies, of the Alabama Power Company, and James L. Elder of the U. S. Bureau of Mines. The undertaking is a joint project, near Gorgas, Ala., of these two organizations and is now in its second year.

The first year's work was successful. A better quality gas is expected this year from the experience gained. Other objectives of the second experiment are to determine the quantity of coal that can be gasified from a given initial combustion zone and the shape and the extent of the burned-out areas formed during the gasification. Also it is designed to test various

types of installations and to determine their operational characteristics under variations of conditions.

Science News Letter, August 13, 1949

## Words in Science— **ASTEROID-COMET**

➤ AN asteroid is one of many thousands of tiny planets which move around the sun, principally in the region between the orbits of the planets Mars and Jupiter. Although they look like stars, they differ from them in that they shine only by reflected light. They are believed to have been born of the disruption of a small planet that wandered too close to a larger one.

Although some asteroids move in orbits like those of the short-period comets, comets are very different in nature. Comets are not solid bodies, but great clouds of gas, surrounding small clusters of particles. Astronomers do not know how, when or where comets were formed. A bright comet appears as a fuzzy spot in the sky with a tail stretching out like a plume of smoke, always away from the sun.

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