Germany and other European countries have been experimenting with the process for many years. It has been reported that Germany produces several million tons of gasoline a year from coal. England is operating a similar plant.

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ENGINEERING

More Oil From Old Wells

After primary oil has been pumped out, electric pilot is used to locate areas likely to contain secondary deposits and then places chemicals in right spots.

➤ MORE OIL from the nation's oil fields by less labor are the twin benefits of the electric pilot described by Dana G. Hefley and P. E. Fitzgerald of Dowell Incorporated, Tulsa, Okla., in a report to the American Institute of Mining and Metallurgical Engineers (*Petroleum Technology,* July). After primary oil has been pumped from a well by ordinary methods, the instrument is used to locate areas that are likely to contain secondary oil deposits, then puts acidizing chemicals into the right place where they help to get out additional oil.

Using acid to increase production of an oil well and to shorten the time needed for recovering oil has often been successful. But most of the acidizing methods used depend upon data about the well supplied by the geologist and engineer. In many cases, the zones specified were inaccurately located or the data were too meager for successful oil recovery.

The electric pilot, however, can quickly locate the areas containing oil, and then chemicals can be introduced through the device into the desired zones. Much time and quantities of acid are thereby saved in getting the secondary oil from the wells.

An electric circuit is completed and registers on an ammeter when contact of one or both electrodes of the electric pilot has been made with a conductor such as acid or salt water in the well; no current registers if the instrument contacts a non-conductor such as oil.

Thus in actual well application, the amount of fluid injection can be controlled by maintaining the proper acid-oil level through reading the changing fluid-interfaces.

The use of the locator is valuable in acidizing many wells with high gas-oil ratios, high water-oil ratios, two or more 'pay' zones, sands exposed above or below limestone, leaky casings and deepened wells.

Better oil recovery and improved operating technique has resulted from use of the electric pilot, the scientists report.

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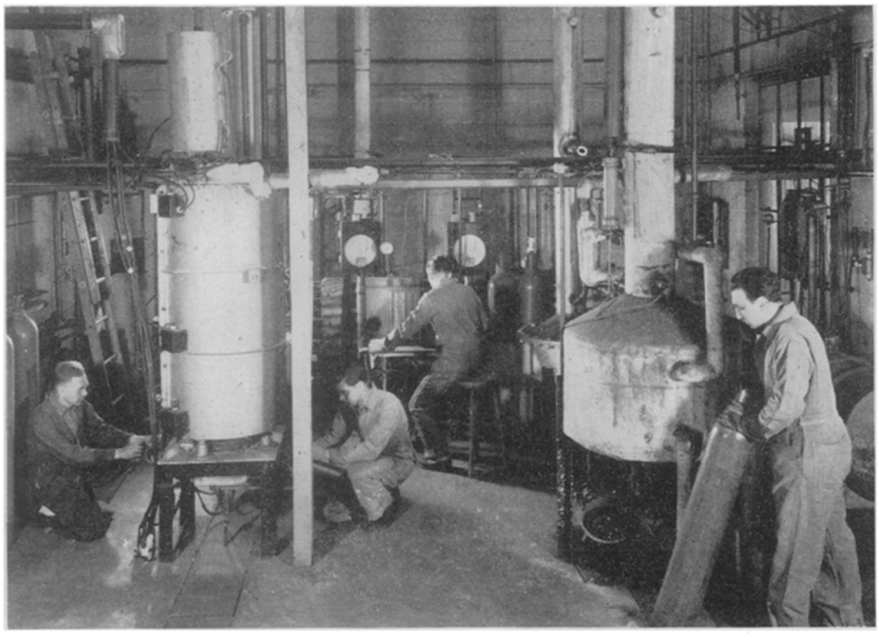

MAKING HYDROGEN—To make oil from coal in the Bureau of Mines Pittsburgh plant, hydrogen must first be made. This plant produces the necessary chemical element in gaseous form from fuel gas. The hydrogen is compressed and then fed under high pressure to a mixture of pulverized coal and oil which has been heated to a fairly high temperature.

PUBLIC HEALTH

First Detailed Study Of Major Sicknesses

➤ FACTS which should prove useful to communities planning general health and medical care programs appear in a report, Hospitalized Illness in New York City, published by the city's Welfare Council.

"Never before has so much detailed information regarding illness in a large city been made available," Dr. Charles F. Bolduan, former director of health education in the New York City Health Department, states.

The report, said to be the first detailed study ever undertaken in the United States or any other country to ascertain the occurrence of major diseases among the residents of a large city, was prepared by Dr. Neva R. Deardorff and Dr. Marta Fraenkel, of the Welfare Council's Research Bureau.

The most frequent operation in the year of the study was tonsil removal, performed on nearly 69,000 patients, mostly children. Accidental injuries, poisoning and broken bones made up the next group of conditions, other than obstetrical, for which hospital care was most frequently given. Obstetrical services accounted for almost one-fourth of the total number of hospital discharges.

The amount of specialized service given in general hospitals, and the reverse; the differences between the services given in municipal and voluntary hospitals; the number of times the same patient went to the hospital for the same condition in one year; and the length of each stay in a hospital are among the facts in the report which will provide practical suggestions for hospital and medical care planners.

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