

SCIENCE NEWS

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OIL-PRODUCING LAND IN THE UNITED STATES

PROFESSOR W. H. PAUL, of Oregon State College, speaking before the Society of Automotive Engineers, stated that it is unlikely that petroleum will be practically non-existent in the United States fifteen years from now because there are well over a million square miles of unexplored possible oil-producing land in the United States. Taking into consideration our proved reserves of twenty billion barrels and all the oil that has been taken from the ground to date (forty-eight billion barrels), there still remains in the earth beneath the United States a known quantity of crude oil amounting to something like 100 billion barrels.

Now that science has developed the art of uniting gaseous hydrocarbons to form liquid hydrocarbons of higher molecular weight, it is possible to produce motor fuel from our large reserves of natural gas. This process would not deplete the normal supply of natural gas, as only the unwanted constituents are removed for motor fuel. It has been estimated that there are the equivalent of seventeen billion barrels of petroleum in the reserves of natural gas in the United States.

Few new discoveries of deposits of oil have been made during the past three years. This is due in part to the curtailment of exploration during a war emergency, according to Professor Paul. The possibilities of the discovery of petroleum are enormous and will be limited only by our ability to devise means and equipment to adequately explore and develop these undiscovered resources.

Outside the United States there are at least five million square miles of first-class oil-promising land. Exploration over the surface of the earth for oil has hardly begun. American interests have reserves in other countries amounting to at least twenty billion barrels. These, together with the petroleum equivalent of natural gas, amount to fifty-seven billion barrels under the control of American petroleum interests. When added to the 100 billion barrels remaining in the ground, there is a total of 157 billion barrels reserve.

Professor Paul stated that although this country now produces over 65 per cent. of the world's petroleum, time will probably show that less than 15 per cent. of the world's total oil had its origin in formations under the soil of the United States.

ITEMS

THE Perseids, the annual mid-August meteor shower, was up to average this year, judging by reports received by Dr. Charles P. Olivier, president of the American Meteor Society. The best record for the shower was received from Shawnee, Okla., where Lieutenant R. J. Wood, U.S.N.R., organized an observing group and counted 1,250 "shooting stars" in four nights of sky-watching. Among the meteors seen were several fire balls of great brilliance. More than fifty reports from observers have been received.

A HIGH cetane diesel fuel, produced from a fluid obtained by synthesizing natural gas, is now being tested by the Navy Department to determine its value as a fuel for combat service. Cetane is used as a gauge for diesel fuels as octane is used for gasoline. The immediate use of the new fuel lies in improving the quality of low cetane fuels and augmenting the present supply of fuel for the many diesel ships in the Navy. In the future it may make 100 cetane fuel practicable where 50 cetane fuel is now the average for high quality diesel fuel. A cheap source of the basic high cetane fluid is natural gas, now vented into the air or wasted. The process by which the fuel is produced employs catalytic technology developed by the synthetic rubber and aviation gasoline programs.

A NEW antiseptic drug which appears to be successful in ridding infected wounds of the kind of germs that cause "blue pus" is announced in the *Lancet*. Phenoxetol is the name suggested for the chemical which is a relative of ethylene glycol, familiar as an anti-freeze mixture. One of its chemical names is ethyleneglycol-monophenylether. It is a colorless, odorless, somewhat viscous liquid which may develop a faint rose-like odor, according to the description given by H. Berry, of the University of London. The new antiseptic is not a rival to penicillin or the sulfa drugs, but rather an auxiliary to them. Less effective against staphylococci and streptococci, it is more effective against the pyocyanus bacillus.

WHEN an insect bites a plant, that isn't news. But when a plant bites an insect, that's at least interesting. That is just what one plant, a lowly mold that lives in the soil, does to insects, according to Dr. Charles Drechsler, of the U. S. Department of Agriculture. The fine threads of the mold, crisscrossed into a fused network, send up little finger-like columns that ooze sticky liquid at their tops. Small wingless insects, of the primitive order known as springtails, get caught on this natural tanglefoot. The mold then sprouts new filaments that grow into the victim's body, sucking it empty of anything that may be nourishing to the hungry plant. Dr. Drechsler suspects that there may be other insect-eating molds. A number of mold species are already known that prey on small worms in the soil.

BROCCOLI leaves, dried and ground into meal, have been found to be an excellent addition to chicken feed mash, in tests at the U. S. Department of Agriculture Eastern Regional Laboratory at Philadelphia. At the suggestion of Professor G. L. Schuster, of the Delaware Experiment Station, the Regional Research Laboratory made up leaf meals of five kinds of plants: broccoli, Lima bean, carrot, turnip and pea. Of these, broccoli proved to be the best, showing high vitamin content and a percentage of protein substantially higher than that of alfalfa meal. Flavor of the meat of broccoli-fed chickens is stated to be definitely improved.