



### Ecologist at Work

**A** QUIETLY dramatic human-interest story of how one old man, with only his hands, a shovel and a few cows, redeemed half a square mile of Arizona rangeland from ruin, was told before the recent meeting of the Ecological Society of America by Prof. Charles T. Vorhies of the University of Arizona.

The central figure of the story, identified by Prof. Vorhies only as "a Mr. Page" was already 65 years old when he bought the half-section of over-grazed, weed-grown, rodent-infested land. That was 17 years ago. He put a fence around it, built his house, and set to work to nurse the land back to normal health.

He used no irrigation, not even contouring or terracing. He just let the native grasses grow, and as he went out in the evening to bring home his cows he carried his shovel, knocking out a few of the worst weeds as he walked along. The grasses would have driven out the weeds anyway, but probably Mr. Page did not know this; at any rate he hastened the process.

He got rid of burrowing animal pests (kangaroo rats and huge ant colonies were the worst of them) by a simple device that conserved soil water at the same time. Wherever he found a burrow or an ant nest he built a pair of V-shaped earth ridges, to turn run-off water into it. The next time it rained, the pest problem was automatically taken care of.

In addition to his four or five cows, Mr. Page has a small orchard and vegetable garden. Water for his domestic needs he stores in a cistern, and he has earth-dam ponds to take care of his stock. On this simple but sufficient basis, adapting their ways to the ways of the land instead of fighting and abusing it,

Mr. Page and his wife have solved their own farm problem in their own commonsense way.

Quite possibly Mr. Page never heard

of such a "professor's word" as ecology. But he is a living example of its successful practice.

*Science News Letter, February 3, 1940*

GEOLOGY

## Oil Discoveries In Nebraska Based on Success In Michigan

### New Finds Are Based on Two Years of Exploration Following Corrugations in Geologic Basin Underground

**S**O THE successful discovery of oil in Michigan and in Illinois can be credited the new discovery of petroleum in Nebraska at Falls City, near the Kansas border, according to scientists of the U. S. Bureau of Mines.

The petroleum finds in Michigan and Illinois were based on geologic "basins" which look like some giant dinner platter with a corrugated bottom. Overlying the basin is surface material — in the case of Michigan, glacial drift — so that the ground level over the drift is not by itself indicative of the underlying depression in rock strata.

The new Nebraska finds have been based on two years of exploration of the Forest City basin, an area comparable to, though smaller than, the Michigan basin.

Typical trick of geologists in searching for petroleum in a basin area is to follow "trends," the lines of the corrugations. A network of these corrugations is worked out and wells drilled at the intersections of the trend lines.

Production in the first Nebraska well is small and it appears that the operators will have to push the well greatly to get sufficient oil to win the \$15,000 prize offered by the state legislature for the first well which will produce 50 barrels daily for 60 days.

In much greater production is the Mississippi discovery of oil, also recently reported, in Yazoo County. Over 700 drilling permits have been issued but the possible extent of this field has not yet been determined.

The proved oil resources of the nation have been increasing yearly, say Bureau of Mines scientists. They point out that there is a significant change in prospecting methods as the cupped-over domes and anticline structures are being exploited.

More and more, stratigraphic studies are being employed and the Michigan, Illinois and now the Nebraska discover-

ies are of this type. Methods of soil-gas analysis too are supplementing electrical and magnetic methods of geophysical prospecting. It has been discovered that a region which has a low permeability to oil and gas seepage has the ability to trap gas and oil over water in many cases. If the seal is tight enough a pocket of gas and oil forms to await the drilling of a well which will tap its hidden wealth.

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The character of early Greek art is only gradually being revealed, says Gisela M. A. Richter of the Metropolitan Museum of Art; adding, "we know now that the graceful, smiling types of the developed sixth-century B.C. archaic art were preceded by bolder, sterner conceptions."



### GROW PRIZE-WINNERS CREATE UNHEARD OF PLANTS IN GARDEN - HOUSE - CLASSROOM

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