

glers", of several different species of mosquitoes, among them the dreaded *Aedes aegypti*, carrier of yellow fever. He kept batches of the larvae in chilly water for a time, then warmed it up to summer temperature, at the same time adding DDT in the proportion of one part of the poison to ten million parts of water. In general, the warmer he made the water, the deadlier was the effect of DDT at that concentration.

Dr. Hodson found that the eggs of the all-too-common pest, the tent caterpillar, will not complete development and hatch until they have been given a thorough winter chilling. In this they are like the buds and bulbs of many plants, which also must be nearly frozen before they will sprout.

The moth of the tent caterpillar lays its eggs in high summer, Dr. Hodson stated. An embryo caterpillar starts to develop inside the egg, but at the end of three weeks it stops and becomes dormant, and only when the weather warms up in the following spring does it wake up, complete growth, and come out of the shell. Eggs brought into the laboratory and kept at summer temperature never hatch. But if they are kept near freezing-point for several months and then warmed up, they hatch readily.

Microscopic examination of the insides of the unhatched caterpillars showed that they contained part of the stock of food originally in the egg's yolk. As they warm up and start growing again, this gets used up—and then the little pests finally hatch and get to work on leaves. Dr. Hodson said that it has been suggested that the caterpillars hatch because they get hungry when the original food-stock is used up.

*Science News Letter, May 18, 1946*

## GEOLOGY

## Big Beds of Bauxite In Northwest Oregon

➤ ALUMINUM-PRODUCING plants in the Pacific Northwest, powered by the great, recently-built hydroelectric installations, may before long be getting their ore from nearby sources. Great deposits of bauxite in northwestern Oregon are described in *Economic Geology* (May), by F. W. Libbey, W. D. Lowry and R. S. Mason of the Oregon State Department of Geology and Mineral Resources.

The beds, which are mostly horizontal, vary from six to 20 or more feet in thickness. The overburden is silt, from one to 50 feet thick; strip mining is therefore practicable.

In addition to the bauxite, from which

aluminum is extracted, the ore contains iron and some titanium dioxide, either or both of which may prove economically valuable. This iron-containing bauxite cannot be treated economically by the process now used for aluminum production in this country, but there is a Norwegian process which is believed to be feasible for working it.

The Aluminum Company of America is now exploring the deposits and conducting metallurgical tests on the ore.

*Science News Letter, May 18, 1946*

## CRYSTALLOGRAPHY

## Hailstones Frozen Slowly X-ray Examinations Show

➤ X-RAYS turned on hailstones produced evidence that these icy pellets are not frozen in a hurry, but slowly, Kathleen Lonsdale and P. G. Owston of the Royal Institution report. (*Nature*, April 13). The diffraction pattern of the rays after passing through sections of the hailstones indicated that the ice was in large, solid crystals.

"Good single crystals of ice can be grown in cold weather within an hour or two," the researchers comment, "but an abrupt cooling of water, say, by a freezing mixture or by liquid air, results in the formation of a coarse powder.

Our experiments show, therefore, that the hailstones were probably formed by a relatively slow fall of temperature in the air through which they passed."

*Science News Letter, May 18, 1946*

## INVENTION

## Ten Tons of Nazi Patents Being Sorted Here

➤ TEN TONS of Germany's best scientific and industrial know-how is being sorted out for American use.

Seized by the United States Army in Germany, 146 packing cases that contain 10 tons of documents from the German Patent Office have been brought over for evaluation. The job of picking out the material most important to American industry and science has been assigned the Office of the Publication Board of the Department of Commerce and the United States Patent Office.

When the documents have been checked, the most useful will be published. The rest of the cache will be returned to Germany to help reestablish the German Patent Office, it was announced.

*Science News Letter, May 18, 1946*

Mexico is planning to produce its own *quinine*.

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