

Do You Know

Brazil is now, for the first time, making *quinine* from its own cinchona trees.

China normally produces one-half the world's *tungsten* ore.

Antelope cannot live in the woods; they like open country.

Milk in a milk bottle left in the sunlight an hour may lose 40% of its important vitamin B₂ or *riboflavin*.

Most hard-shelled *turtles* are vegetarians or scavengers; but two groups, the snapping and the soft-shelled turtles, are more largely predatory.

The United States Forest Service estimates that the drain on the *forests* of the nation in 1943 amounted to nearly 17 billion cubic feet, and exceeded total growth by 50%.

Army poncho for tropical areas is made of *water-proofed nylon* and can be used as a fox-hole cover, ground sheet, or a moisture-proof bed-roll; two hooked together make a pup-tent.

Heavy paper bags lined with *asphalt*, used to ship materials to Army divisions overseas, are often used by soldiers when empty to protect clothing from dampness and for overshoes in wet fox-holes.

More than 8,000 tons of *rice* were harvested this year from a tract of land in New South Wales, Australia, which until this year produced only enough food for kangaroos and a few sheep.

Peru, original home of the white potato and still the home of many wild species, is importing improved seed stock from the United States to increase Peruvian commercial production.

The most exotic and perishable fruits and vegetables from *Latin America* are expected to become commonplace on U. S. dinner tables with increased post-war use of cargo planes.

The 4.2 chemical mortar, or *goon-gun*, was developed in 1924 to throw gas shells; it is now used to make smoke screens, smoke enemy out of fox-holes with burning phosphorus, and blast men and vehicles with high explosives.

ECONOMICS

Minerals Controlled

The United Nations have access to 85% of the world's mineral production; the Axis only 12%. Depletion of our reserves is serious, though shortages are not immediate.

► THE TOTAL commercial and political control of the United Nations over the world's mineral production, by value, is about 85%, while Germany and Japan between them account for only 12%, Dr. C. K. Leith, of the Materials Section of the War Production Board, told the American Society for Testing Materials, meeting in New York. These figures are based upon a survey made in 1939, and brought up to date to include wartime territorial gains.

The U. S. controls 34% of the world's mineral production politically, and another 10% commercially in other countries.

Depletion of our mineral reserves is becoming serious from the long-range point of view, requiring conservation, though shortages are not immediate, Dr. Leith pointed out.

"It has been predicted that technological advances and substitutions will lessen dependence on mineral supplies. The record to date does not bear this out. Production of all minerals has grown steadily in spite of many spectacular technological changes," he said.

Dr. Leith called for a long-range minerals control policy that would give foreign countries access to mineral supplies at a fair price, thus fostering international cooperation on the question of minerals. No nation of the world has enough of all minerals, he stated.

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Strength Measured

► CONCRETE strength in cement structures, during the curing and setting period, may be accurately measured by the use of embedded iron pull-out bars with enlarged ends, placed during pouring a short distance inside the face of the material.

This promising method, tested first by Russian engineers, was described at the meeting by Bailey Tremper of the Washington State Highway Department.

Construction men must know the strength of the curing concrete placed in structures before the holding forms or falsework can be safely removed. One method, now widely used and not en-

tirely satisfactory, includes the making of test cylinders of the same mixture as used in the construction, testing them at periods by laboratory compression machines, and assuming these cylinders cure at the same rate as the structure itself. The difference in environment of the cylinders and the structure itself is the principal source of error in this method.

The pull-out bar method, still experimental, makes use of a bar one-half inch in diameter, with an enlarged end three-fourths inch in diameter and nearly an inch long. The amount of pull to get the bar out of the hardening concrete is used as a measure of strength.

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Portland Cements Tested

► FIFTY-TWO samples of commercial portland cement imported into Venezuela from 11 European countries, China, Japan, and the United States or produced in Venezuela have been recently subjected to tests in that country under methods recommended by the American Society for Testing Materials and most of them found to comply at least with the minimum specifications of the Society. Several countries, it was found, produce very excellent cements.

The testing was carried out under the direction of Eugene V. Barrett, chief of the laboratory of the Venezuela Ministry of Public Works, who reported the results at the Society meeting.

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WYOMING

Yes, even THIS summer you may fish in its mountain streams, ride horseback through its hills and canyons, find Indian relics and marine fossils in a region of great historical and geologic interest.

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