Do You Know?

Makhorka is a kind of coarse tobacco raised and used extensively in Russia.

Plastic fifes and bugles make marching music and chow-calls in the Army.

Attic insects, such as cluster or honey flies, wasps and elm tree beetles, can be controlled with a pyrethrum spray.

Chlorine dioxide, first used to bleach flour less than two decades ago, is now used to bleach starch, paper, soap and textiles.

Enough *barium salts* will soon be mined and produced in Brazil to meet local needs; barites are used in paint pigments.

By agreement between the two countries the United States will buy all *pyrethrum flowers* grown in Brazil not needed for domestic insecticides.

An average of 500 pounds of *water* is sucked from the soil by the roots of plants and passed through the plants to produce one pound, dry weight, of growth.

Farm accidents in the United States take about 20,000 lives a year and injure some 2,000,000 others; farm machinery, livestock, slips and falls are the principal causes.

Gur is a crude type of unrefined brown sugar produced in India; it contains about two-thirds as much sucrose as factory white sugar but is used in large quantities because of its lower cost.

Thirty-seven of the 48 states are served with *natural gas* having nearly 9,000,000 customers; nearly 11,000,000 other customers in the United States were served with manufactured and mixed gas.

Ultra-pure fine *iron* rod, 99.99% pure, obtained by electrolysis and then by cooking in hydrogen in a high-frequency radio-wave furnace, is used for comparative purposes in the spectrographic examination of commercial iron.

A special medical committee has been appointed by the Swedish government to study the ill effects resulting from the use of wood and charcoal *producer gas* units in motor vehicles; the gas is a substitute for gasoline.

MEDICINE-METALLURGY

Malaria Controlled in U.S.

Dreaded as scourge when camps first opened, now considered minor ill on home front. Still a challenge in tropics.

➤ MALARIA, dreaded as a potential scourge when Army encampments were first established in this country, has turned out to be only a minor home front trouble, Maj. O. R. McCoy, M. C., director of the Tropical Disease Control Division, Office of the Surgeon General, told the meeting of the American Association for the Advancement of Science in Cleveland.

Malaria rates on military reservations have consistently remained below peacetime levels, and in 1943 the figure dropped to a record low of only two cases per 10,000 troops stationed in the continental United States. Major McCoy credited this remarkable showing primarily to the ten-million-dollar campaign against mosquito breeding places which the Army has waged incessantly for the past three years.

In addition to the customary measures of drainage and oiling, heavy use has been made of larvicides to kill the "wigglers." The sensational insecticide, DDT, has proved the best killer for larvae as well as adult mosquitoes, and it is now available in quantity for military uses. Major McCoy also had high praise for the aerosol "bomb" method of attack on mosquitoes.

For meeting the malaria menace in the tropics, complete suppression of mosquito breeding is impossible, and reliance must be placed partly on personal defenses such as nets and repellents, partly on antimalarial drugs. For the latter purpose, the speaker stated, atabrine has now been found on the whole more satisfactory than quinine. Neither atabrine nor quinine, however, is completely satisfactory, and the search for the final answer to the malaria germ's challenge still goes on.

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Treasure at Rainbow's End

➤ TREASURE-TROVE at the rainbow's end is not just a romantic dream to scientists. The special kind of rainbow made by splitting the light from minerals heated to incandescence and analyzed in the spectrograph, to find out what metals they contain and how much of each, can serve as a guide in our search for new ore bodies from which to feed our smelters when present beds of high-grade ores have been worked out, Dr. Lester W. Strock of the Saratoga Springs Commission, State of New York, told the American Association for the Advancement of Science.

War demands, Dr. Strock emphasized, "have not created a new problem of a dwindling ore supply, but merely accelerated a trend already well established and aroused more interest in the inevitable end-result inherent in ore mining. . . . To continue living in a Metal Age, new raw materials for metals must be discovered and utilized. These will be large-scale deposits of mineralized rocks, of too low grade and too complex for use by existing plants and current economic practices."

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ARCHEOLOGY

Food for Egyptian Mummies Still in Good Condition

➤ BREAD from the funeral feasts that were put into the tombs with ancient Egypt's mummified dead is still bread, with starch and protein grains still in good chemical condition, Dr. Wanda K. Farr, of the Research Laboratories of the Celanese Corporation of America, told the American Association for the Advancement of Science.

Microscopic examination and chemical tests of the various parts of the wheat grains "show little physical deterioration beyond that caused by prolonged drying and the original grinding between stones in the preparation of flour," Dr. Farr reported. "Cell walls and starch grains in large numbers are intact, and even the fragments of those that are broken show no marked evidence of chemical deterioration. The bread compares in coarseness and color with modern cracked wheat bread."

Microscopic and microchemical examinations of fabrics found in Egyptian tombs also disclose a remarkable state of preservation. Fabrics found in Peruvian tombs were badly deteriorated.

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