



HARVESTING—“Quineros” strip cinchona trees of their bark for use in making anti-malaria drugs.

extracting the malaria drugs from fresh, green cinchona bark. This is where a great saving in money is made. The Dutch got quinine from cultivated cinchona trees yielding a high percentage of quinine and growing in accessible plantations. Cinchona trees are native to Latin American countries, but grow in dense forests that can only be reached over rough, muddy mountain trails.

Totaquina and quinine have previously been extracted only from dried, ground bark. That meant, in the case of the Latin America trees, packing the bark out by mule or man-carry over indescribably difficult trails. The bark could not be dried where the trees grow because of the constant rainfall. One ton of the dried bark, which cost \$65 to ship from a Latin American port of embarkation to the United States, might not yield as much as 40 pounds of quinine alkaloids. One of the difficult trails is shown on the cover of this SCIENCE NEWS LETTER.

Totaquina has long been known as “the poor man’s quinine.” Its present cost, when made from dried bark shipped to this country, is \$16 per thousand doses, or about one and one-half cents per dose. Most of the 300,000,000 malaria sufferers in the world each year cannot afford any such expensive medicine. If they use totaquina, they use a home-brewed tea and cover the taste, if possible, with alcoholic beverages of some kind, which, incidentally, helps to extract more totaquina.

Quinine, selling at \$90 per 1,000 doses when the government last bought any, and atabrine, even at the present government price for large quantities of \$4 per 1,000 doses, are also out of reach of the poor people in malaria regions who need a malaria medicine most.

Totaquina can be produced from fresh bark on the spot by the Engineer Board’s new method, however, at a cost of \$3.80 per 1,000 doses. This is about one-third of a cent per dose, and atabrine bought by individual patients in retail quantities today would cost about four cents a dose. The Engineer Board’s third-of-a-cent per dose figure, moreover, is based on U. S. labor costs with the gasoline motor ion exchange process. The “bathtub” process, with native labor, should bring the price down much lower.

Science News Letter, August 4, 1945

PUBLIC HEALTH

Polio Cases Increase Throughout Nation

► INFANTILE paralysis cases increased throughout the nation during the week ending July 21. The total number reported to the U. S. Public Health Service was 369. The total for the previous week was 254.

The 369 figure, however, is considerably below the 568 cases reported for the corresponding week last year.

States reporting the largest increases were New York, New Jersey, Pennsyl-

vania, Virginia, Massachusetts and Texas. Tennessee, where cases had begun to swing up, reported a slight decrease.

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As seeds respire, they will not *germinate* unless they have a sufficient supply of oxygen.

New stainless steel *vacuum containers*, used to carry hot soups and cold beverages for passengers in airplanes, weigh one-half as much as those formerly used and protect the temperature of the liquids at any altitude.

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