

Deep in the Tropical Jungles  
Of South and Central America  
United States Foresters Seek  
Out New Stands of Timber to  
Supply Wood for Wartime Use



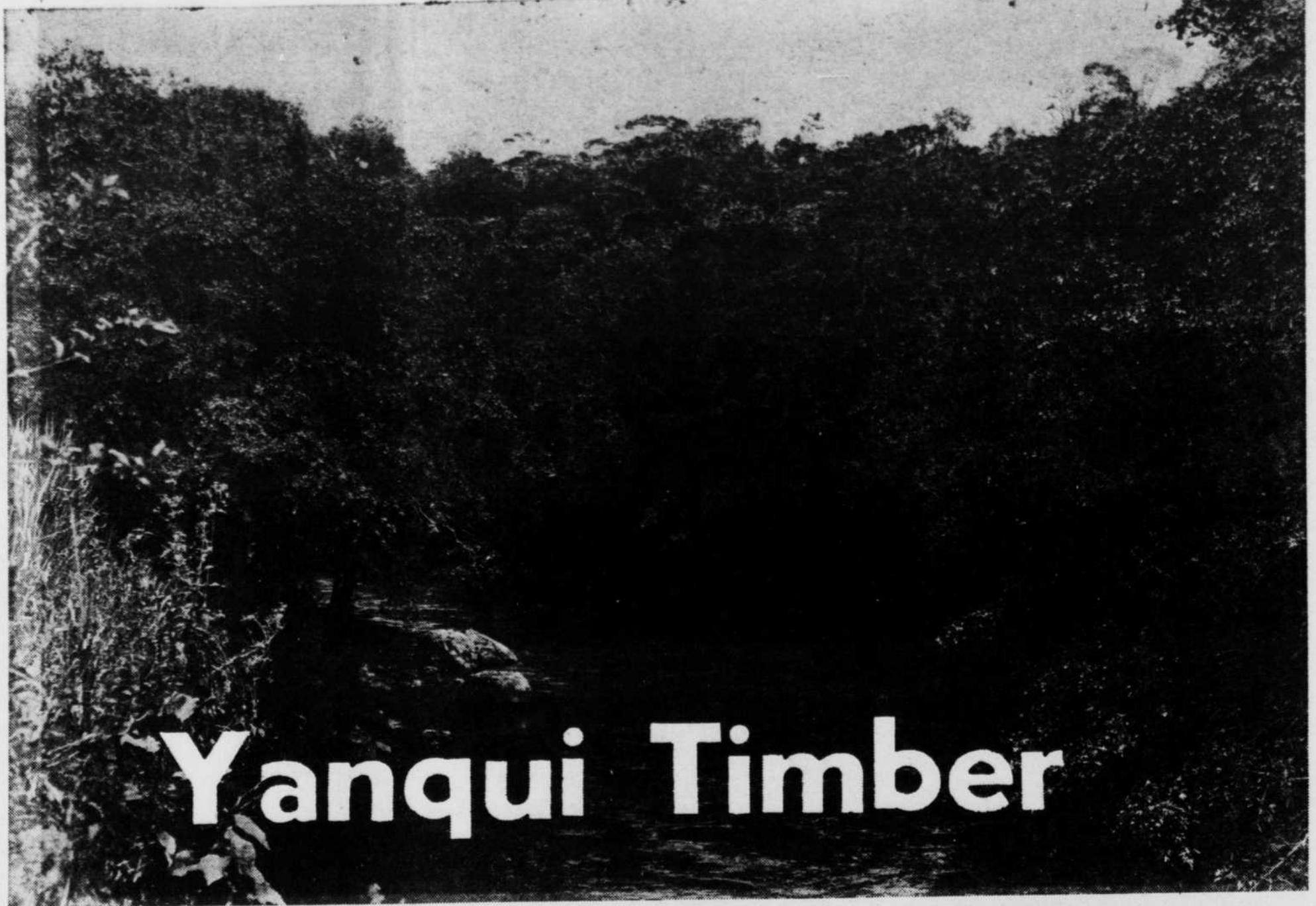
FORESTRY EXPERT is William R. Barbour, who found new stands of timber in tropical America.



TROPICAL LUMBERJACKS prepare to topple a cenizo tree. Its wood is similar to the elm.



MASSIVE OAKS provide a tough durable wood that can often be used as a substitute for steel.



# Yanqui Timber

By Davenport Steward

**T**IME was when Yanqui timber cruisers south of the Rio Grande sought almost exclusively the so-called "precious woods"—rosewood, satinwood, coco bolo and mahogany, for example—but today's emphasis is on an intensive search for woods of value in the war effort.

The Americans now are looking for balsa for Mosquito bombers and life rafts, cinchona for quinine and oak for tannin; they're spotting tough, durable woods as substitutes for steel in the construction of the Pan-American Highway and big trees for use in the manufacture of rotary veneers.

Mahogany, of course, is still wanted, but not for the manufacture of furniture. One of the wartime uses of this wood is in the construction of the Navy's deadly PT boats. Here strength and workability count more than beauty of grain.

The work of a handful of timber cruisers and explorers from the United States is passing almost unnoticed in a world aflame from the islands of the South Seas to the frozen wastes under the northern lights; but it is important work, contributing both to the war effort and to the fair new world we are going to build when the roar of the guns fades.

Fewer than a dozen skilled men of the United States Forest Service are co-operating with other federal agencies in gathering essential information on the tropical forests of South and Central America. Their names and deeds are known to few.

ONE of them is William R. Barbour, senior forester, who has just returned to Atlanta, Ga., after almost a year spent in exploring an area about the size of West Virginia in Costa Rica. Barbour—lean, bespectacled, gray and quiet—is one of the government's ranking experts on tropical forestry, having spent 12 years in tropical America prior to this last assignment. Many archery enthusiasts know him as one of the men who introduced bow-and-arrow hunting to the national forests of the South.

Barbour's year in the Costa Rican forests was split by one short period in the States and his job south of the border is typical of the work being done in other Latin American countries by foresters from the United States. He traveled by plane, by jeep, by caterpillar tractor, on the back of a mule and afoot. Some nights he camped 10,500 feet above sea level, sleeping none too warmly under four woolen blankets, and other nights he sweated out under a mosquito net in steaming low country. He explored jungles so dense that he had to follow a trail hacked out by his "machete man." Once he spent 15 minutes traveling 150 feet from a road to the base of an oak tree he wanted to measure and examine.

Some of the country Barbour penetrated was unknown to anyone prior to his exploration.

High on the Continental Divide he and his companions discovered a forest of giant oaks, the largest known in the world; some of the trees were eight feet in diameter and 80 feet straight up to the first limb. Although the altitude made for a temperate climate, Barbour was surprised to find an oak forest only nine degrees off the equator.

Analysis of bark samples from this forest showed that the tannin content, valuable for use in tanning leather, was higher than that of oaks in the United States.

Barbour also discovered several new timber trees, one of which was named for him—Vantanea Barbourii. This particular tree, of a family new to North America (Central America is part of the North American continent), reaches a towering 100 feet and attains a diameter of three to four feet. The wood is described as stronger than oak, hard, heavy and purplish-pink in color. It's now being used in the construction of bridges in the Costa Rican link of the new Pan-American highway.

AT this time there are Office of Economic Warfare-Forest Service missions in Ecuador, checking resources of balsa, and in Colombia and Peru, searching for native quinine. In Costa Rica, Barbour flew for hours over the jungles, spotting balsa trees.

The need for quinine is common knowledge. All of it used to come from wild South American cinchona trees, but by the enterprise of the Dutch the trade soon was transferred to the great plantations in Java. Since the Japs now hold Java, they also control the bulk of the world's quinine supply.

While in Costa Rica, Barbour bumped into his old friend Col. Arthur Fischer, former head of the Philippine Forest Service. It was Fischer who, with rare presence of mind, obtained a stock of cinchona seeds before he followed orders to flee the Philippines; and today cinchona plantations are being planted in Costa Rica. The trees thrive best in a volcanic soil at from 4000 to 6000 feet elevation. After this war we will look first to the south for our quinine, as in fact we are looking now.

Although the United States owns next to no tropical forests—only the tiny strip of the Canal Zone and the forests of Puerto Rico and the Virgin Islands—it naturally is interested in them, not only for timber but for extractives, such as gums, resins, oils, alkaloids and tannin. The forests of Central and South America present a virgin field for chemical work of this nature.

Indications are that the age of steel will be followed by an age of plywoods and plastics. By weight, plywood is stronger than steel. In order that American industry may compete successfully in this coming age it is necessary that facts and figures be gathered now. The Forest Service, the OEW and other government agencies are getting together a huge file for use now and later.

A good many people believe that after the war the commerce between the United States

and its "good neighbors" will increase. In some respects it will have to, because the supply of virgin timber in the United States is getting scarcer by the day. For rotary veneers, used in the manufacture of plywood, big knot-free logs are essential.

Although none of the "good neighbor" countries has a forest service—in fact, there is no Spanish or Portuguese word for a technical forester—all that have been approached by Uncle Sam are co-operating, usually through their ministries of agriculture.

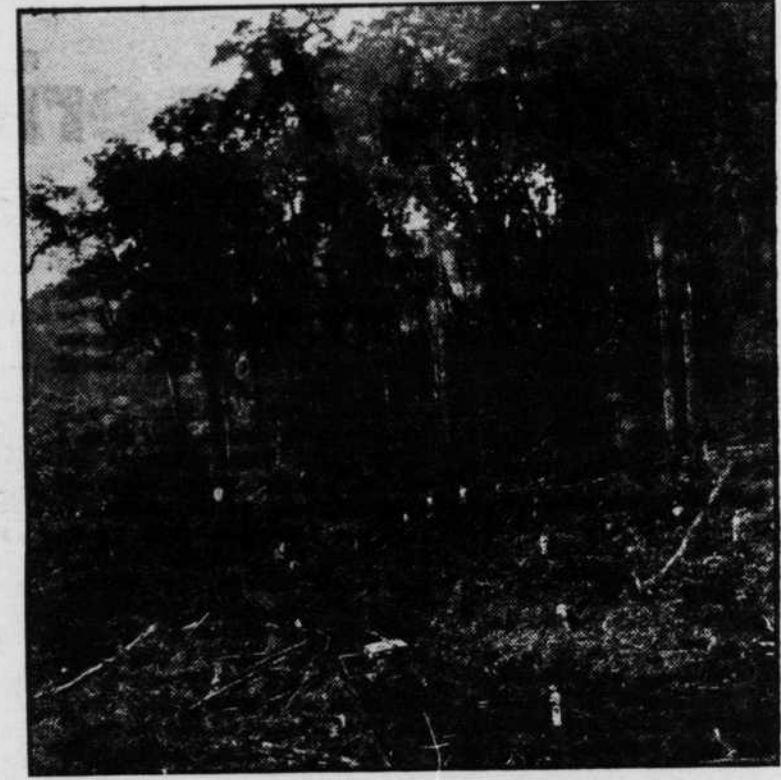
Many of these countries are chiefly virgin forest, some of it unexplored, and the chief fear of United States foresters is that reckless exploitation may begin some day. For an example of what they don't wish to see happen again, foresters point to the case of the lustrous, growing United States, where trees were felled without thought of the future, with the result that conservation measures were taken after most of the best forest land had been ruthlessly cut.

ONE of the toughest problems that confront the foresters sent south lies in the complexity of tropical forests. There are so many species of trees, as compared with the number in more temperate climates, and there are so many trees which are unknown outside the lush jungles in which they grow. It is essential that every tree be known by its botanical name, because it not infrequently happens that the same species is known by a different local name in several different Latin American countries.

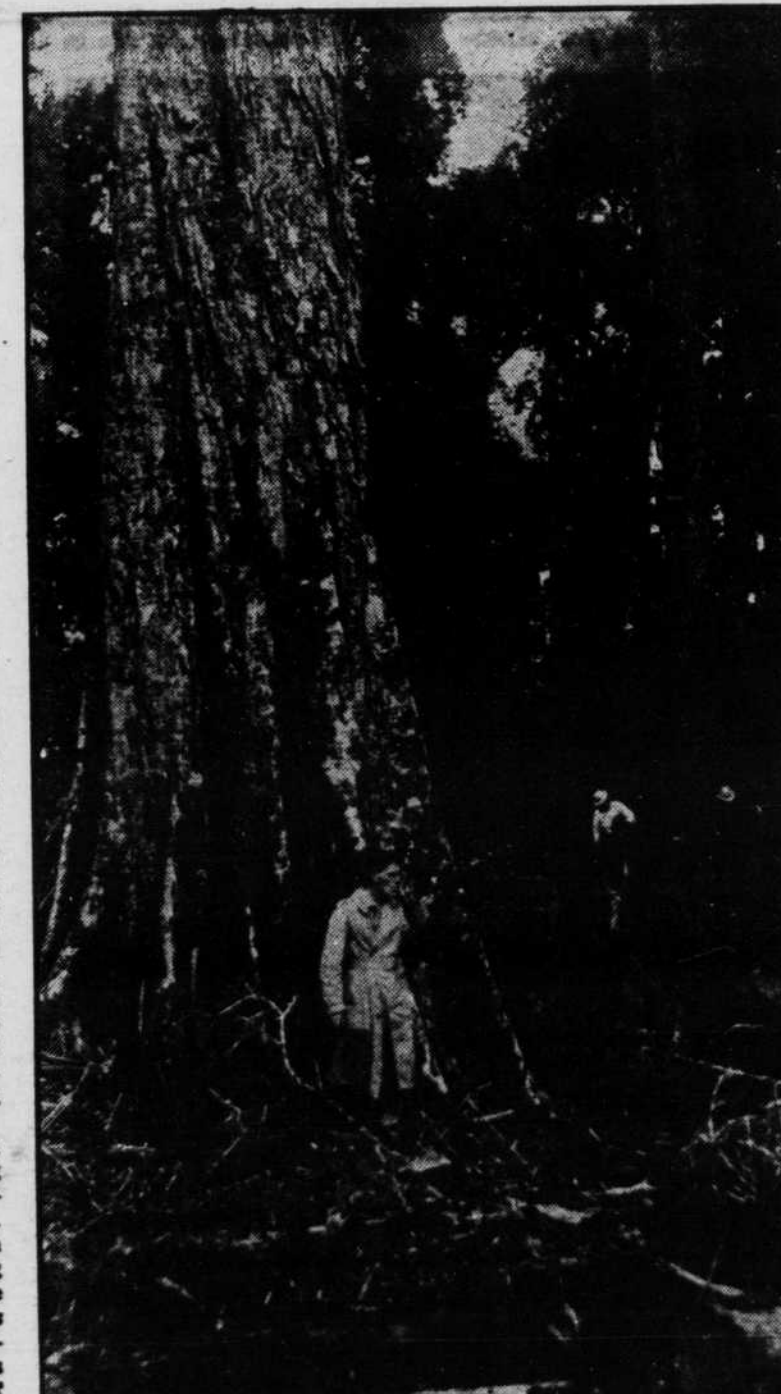
Consider the Tabebuia Pentaphylla, a tree similar to the oaks and of good commercial possibilities. The common name for it in much of Latin America is roble, but in Venezuela it's known as apamate. One day a Venezuela exporter received an order for roble timber, but he turned it down because he didn't know that this and the very common apamate of his own country were one and the same.

Then there's a soft but durable and almost termite-proof wood that comes from the species Bombacopsis. This wood also has good commercial possibilities, but these are no greater than the confusion surrounding it because of its different names in the various South and Central American countries. In Venezuela it's known as jaris, saquisqui and cedro colorado; in Colombia it's called tolu; in Panama it's cedro espinoso and in Costa Rica it's called pochote. Thus, if an importer cables an order for a shipload of tolu to a dealer in Costa Rica, he's apt to get something besides Bombacopsis (or pochote, if you wish).

As noted, there is no Spanish or Portuguese word meaning forester, although there probably will be one of these days. The Spanish word forestero is a term of derision, meaning "woods hick." So for the time being Uncle Sam's foresters south of the border are traveling incognito. They're botanicos—botanists. Even the Indians of Costa Rica, who shoot fish with eight-foot arrows, respect botanicos. Same thing as a medicine man—si?



TREES TOPPLE as work moves forward on the Panama link of Pan-American highway project.



BARK SAMPLES from tropical oaks like these contained more tannin than those of the U. S.