

A New Use for Willow

The willows, which in immense number either fringe or cover the islands and bottom lands along the Upper Mississippi, have been found at last to serve a real commercial purpose instead of just greening and festooning the landscape and supplying the Indian women with the material for basketry. The Government in its \$20,000,000 undertaking to make a 6-foot channel at lowest water stage on the Mississippi from St. Louis to St. Paul, has turned willow lumberman and is cutting thousands of these willows annually.

The channel deepening is largely accomplished by the building of "wing dams" out from shore. These throw the water into one main groove, increasing the rate of the current, which in turn scours out and deepens the channel. Besides the wing dams, in order to prevent the waters from spreading into secondary channels, occasionally a "closing dam" is built across the neck of a

slough or bayou, entirely cutting it off from the river.

To build these dams Uncle Sam has many crews at work chopping down willows on the islands. They pay the owners a small sum, and in most cases the parties owning the lands are glad to get rid of the willows, as it gives more chance for the trees to grow. The willows are loaded on big flat barges and towed to the place where the dam is to be built. They are tied into bundles and then dropped from the barges into the river at the point of dam building. After a mattress of them has been laid in the water it is loaded down with rock to sink it to the bottom of the river. Then a second willow mattress is built which in turn is sunk. So the building goes on until the dam is of desired height. The barges of willow and rock are moved up and down the length of the dam by electric power furnished from a floating power house, which with the barges forms the equipment of a dam building crew.

Where Cork Comes From

Cork is the outer layer of the bark of an evergreen oak. Although the tree grows over a wide territory, the commercial production of cork is restricted to a comparatively small area bordering the western Mediterranean Sea, between the 34th and 45th degrees of latitude, North.

The Iberian peninsula is the great centre of cork production and produces nearly two-thirds the world's supply of cork. It also grows widely in southern France, Italy, Corsica, Sardinia, Morocco, Algiers, and Tunis, and, to a limited extent, in Greece, the Dalmatian Coast, Tripoli, and Asia Minor. Portugal probably produces more cork than any other country, but Spain is regarded as the centre of the cork industry because it imports large quantities from Portugal and re-exports it together with the Spanish product in the various manufactured forms. The Tagus River Valley in Portugal and the provinces of Catalonia, Andalusia and Estremadura in Spain are the great sources of the world's cork supply.

There are 400,000 acres of cork forest in France, 818,000 acres in Portugal, about

850,000 acres in Spain, 1,000,000 acres in Algeria, and 200,000 to 250,000 acres in Tunis. The total area of cork oak forests is estimated to be between 4,000,000 and 5,000,000 acres. The richest and most productive forests are in Portugal and Spain.

Cork has played an important part in civilization since the days of the ancient Greeks of the 4th century B. C. and the Roman Empire, for it is mentioned by Horace and Pliny as well as by Plutarch and an early Greek writer. Even in those early days cork was used both for bottle stoppers and for buoys for fishermen's nets. The introduction of glass bottles in the 15th century gave a great impetus to the industry and the importance of cork gradually increased until modern times.

In 1914 America imported over \$6,400,000 worth of cork in its various forms, and even in 1918 the value was over \$5,000,000 in spite of the lack of ocean tonnage. In 1916 Spain exported cork and cork products to the value of about \$6,900,000. The annual production of cork from all sources is estimated to be between 50,000 and 60,000 tons.