



## BIG RED WHEELS CHANGE LOGGING

Before Silas Overpack introduced the Big Red Wheel in the 1870's the lumber companies could only cut trees in the winter. The loggers would cut the trees and skid the logs on sleds to iced trails. The logs were stored on the riverbank until the spring thaw. As the snow melted, the river became a highway for the logs to reach the sawmills.

Overpack's Big Red Logging Wheel allowed lumber companies to haul lumber in the summer. The wheels had an axle made from hard maple wood. The wheels were eight feet or more around. They were double rimmed with iron to strengthen them. Iron bands covered the spokes to protect them from damage. The wheels carried logs up to 100 feet long and up to 2000 board feet could be hauled at one time (a board foot, the way lumber is measured, is a piece of wood one foot long, one foot wide, and 1 inch thick). Logs were chained beneath the axle and the 16-foot tongue would be lowered to tighten the chains. The tongue was then hitched to oxen or horses and the logs were on their way to the riverbank.

Overpack made nine, nine and one half and ten foot Big Wheels in his Manistee workshop during the late 1800's and early 1900's. In Michigan, at least 65 lumber companies used them. The wheels were loaded onto flatcars and shipped all over the other forest lumbering states in the United States. The wheels were also used to help carry the heavy equipment in France during World War I. The decline of the forest industry along with motors replacing horses brought about change. The need for Big Wheels faded and the last Big Wheels were shipped from Manistee in 1920.



### Teaching Tips:

- Overpack's Big Red Wheel incorporates the use of simple machines to move the logs. Ask students to look at the tools of a logging camp (cant hooks, hammers, saws, axes, etc.) and identify the simple machines incorporated in each of the tools.
- Make a model of Overpack's Big Red Wheel using pieces of an Erector Set.
- Use this article to teach cause and effect. See graphic organizer in Multi-Purpose section of the Teacher's Edition.

"IS A HIKING STICK  
AN INVENTION?"

