

Teacher Instruction

Measuring a canoe:

What is a measurement if it is an "arm span" long or a "thumb crook" thick?

Most canoe carvers today use inches and feet to measure their canoes; but not so long ago the system of measurement was different. There was a traditional system of measurement in which the carver used the lengths of his arms, hands, and fingers as the tool for measurement.

An arm span is the measurement taken with arms stretched out from finger tip to finger tip. This is sometimes spoken of as a fathom, or about 6 feet. This type of measurement is considered a unit of measurement that was consistent for each person. Standards—whether the carver is using the traditional method or inches and feet—are used by each carver when measuring the different kinds of canoe. While many ocean-going canoes have a 7 to 1 ratio, the little hunting canoes often varied. In this story, the little hunting canoe is a bit bigger than the standard.

To help children visualize the length and width of the canoe, have them measure and draw chalk canoes out on the playground. Use the standard 7 to 1 ratio, as well as creating other lengths and widths. For the children to understand the use of pegs to determine thickness of a hull, use the child's toy that has pegs which are hammered into holes. Use a peg that is shorter than the depth of the hole so that the children can see that the wood must be carved away to reach the top of the peg. Once all the tops of the pegs are exposed, the carver then smoothes the hull of the canoe.

Making play dough pegs or using the thumb crook measurement, would be another way of experiencing units of measurement. Have the students roll out a rope of play dough, measure it off with their own thumb crook (a personal unit of measurement), and cut the lengths with a plastic knife. These pegs could be used to measure the thickness of different objects in the room.

How Big Will My Canoe Be?

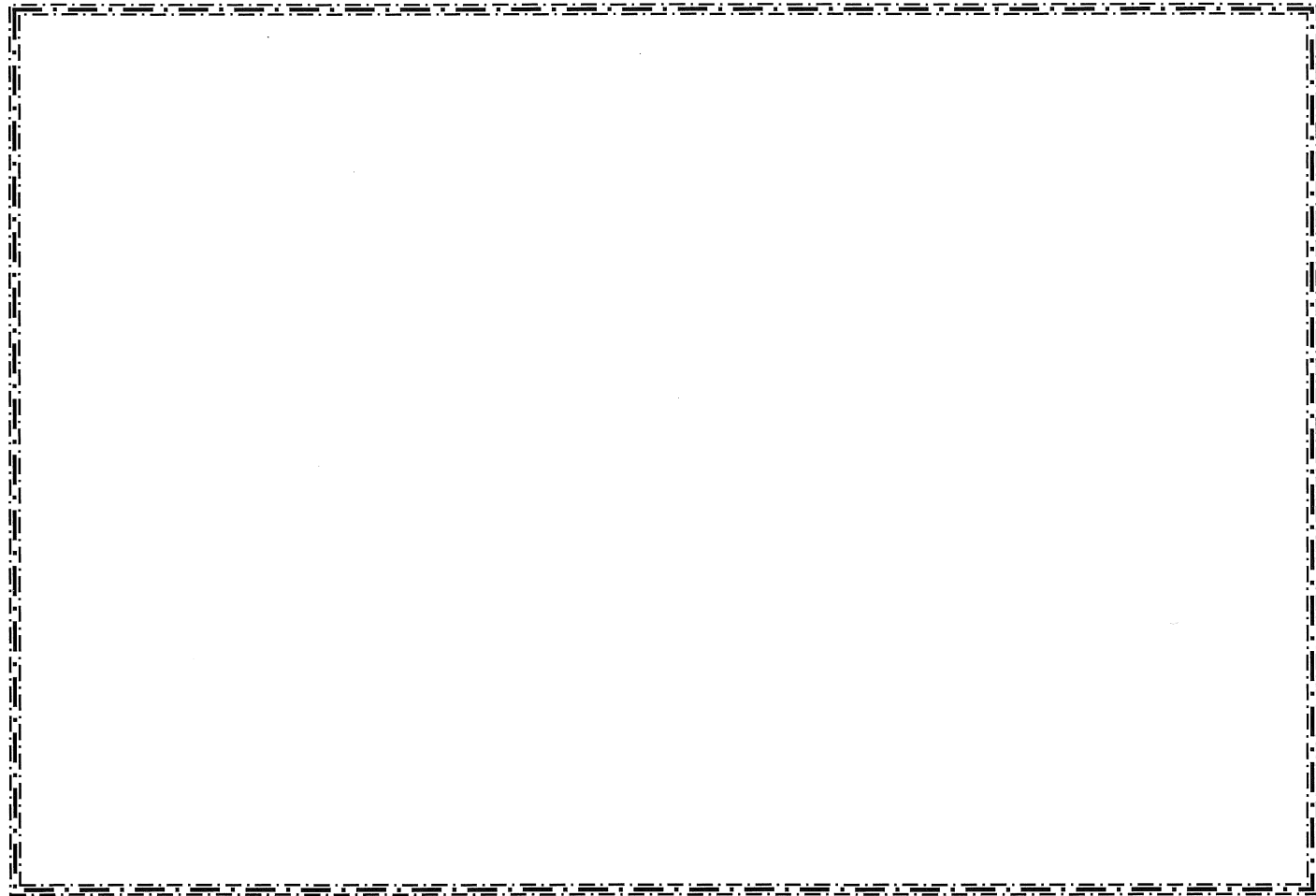
by Nan McNutt

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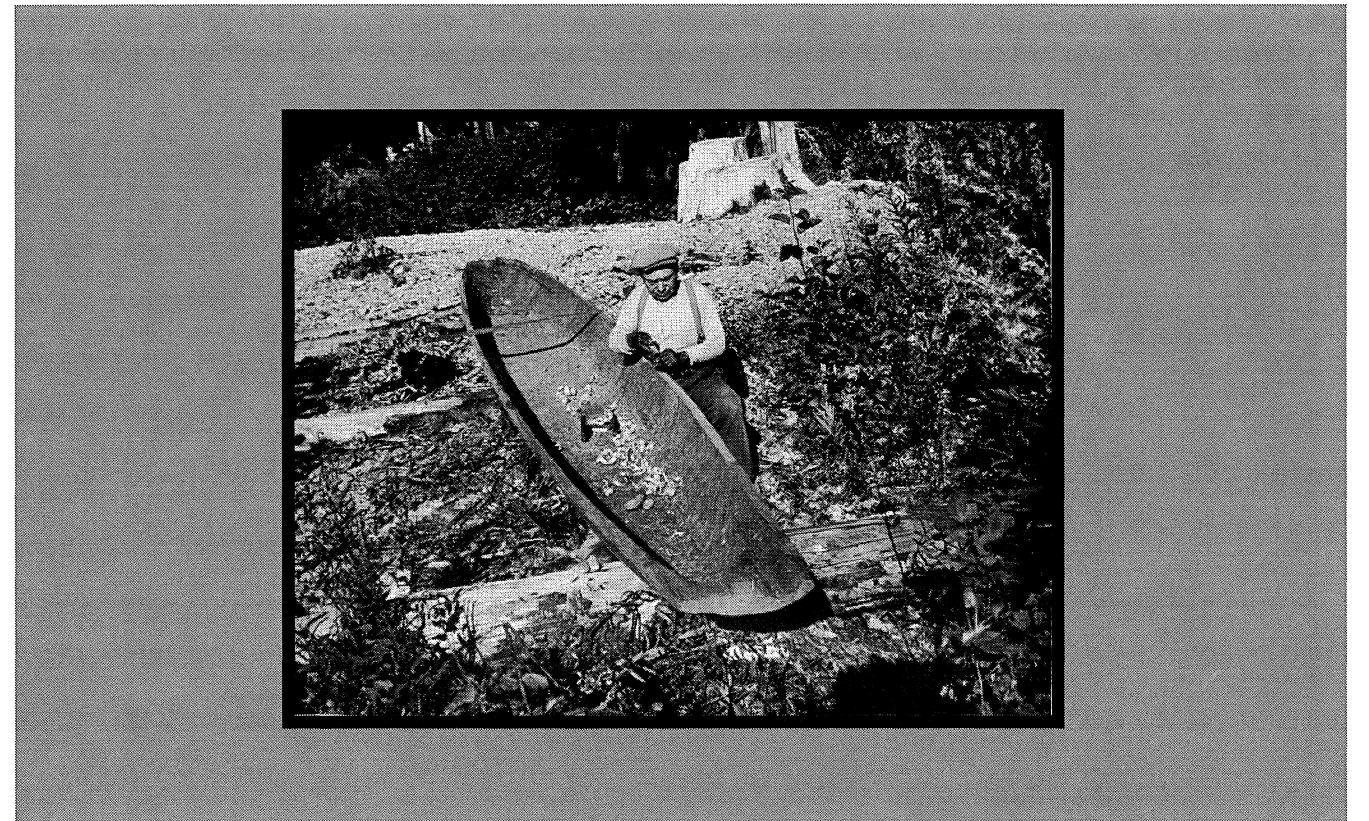
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My canoe will be big enough for two—Grandpa
and me!



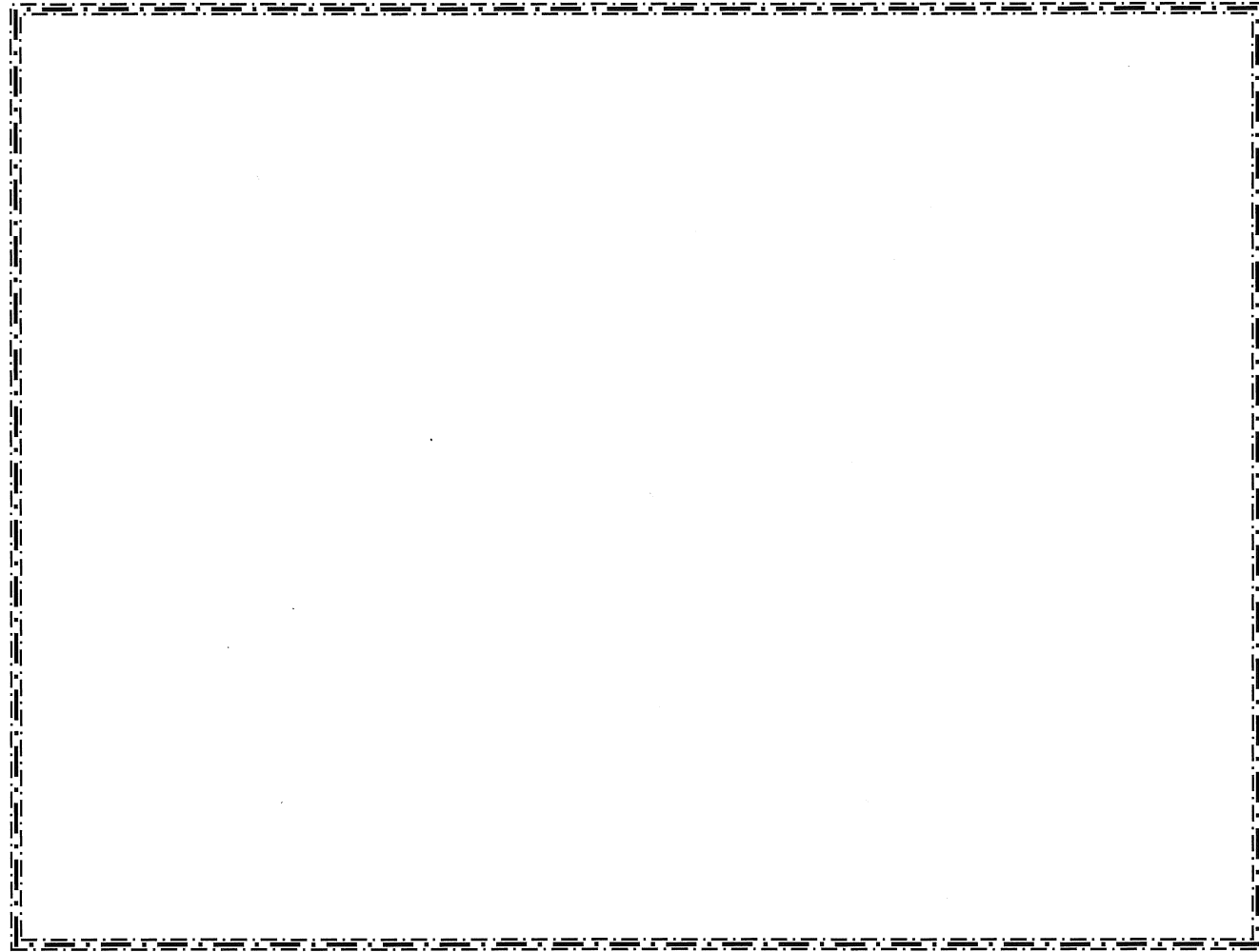
How big will my canoe be?



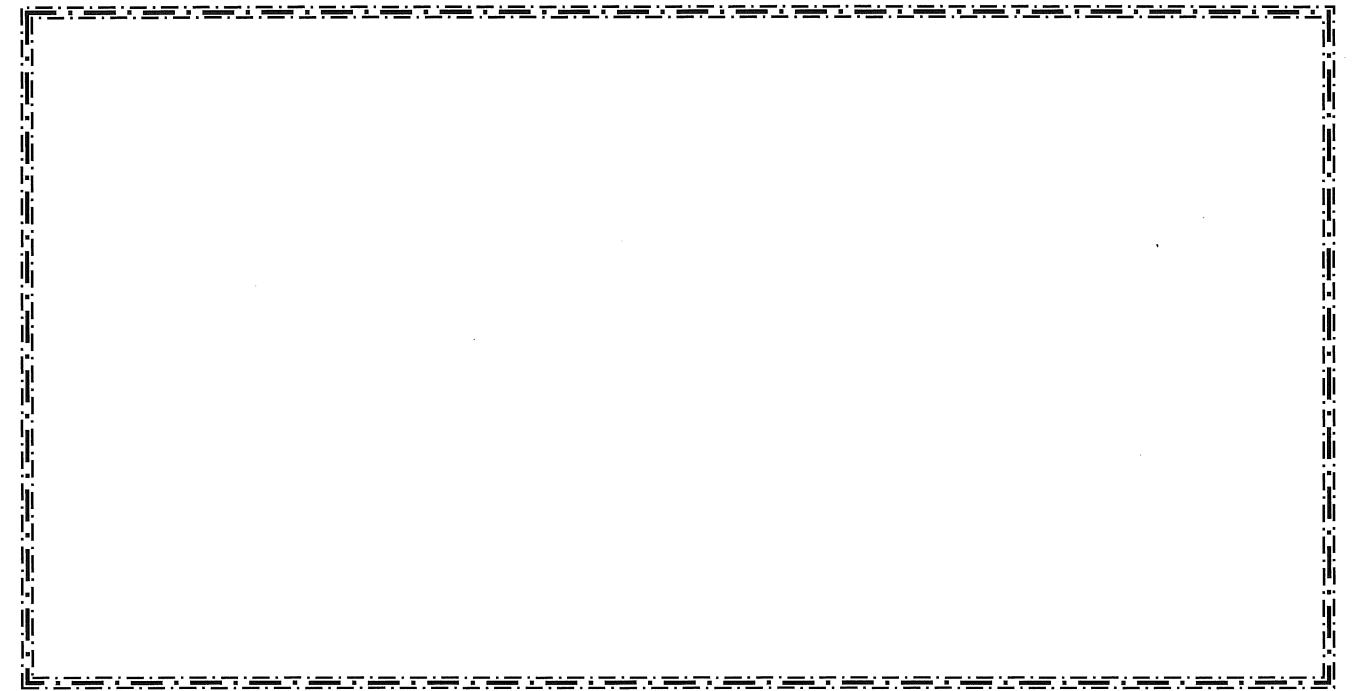
Quinault man using plane to smooth side of canoe near Lake Quinault, Washington

Man in cap, jeans and suspenders works at smoothing the side of carved canoe, set across two fallen logs.

MSCUA, University of Washington, NA754



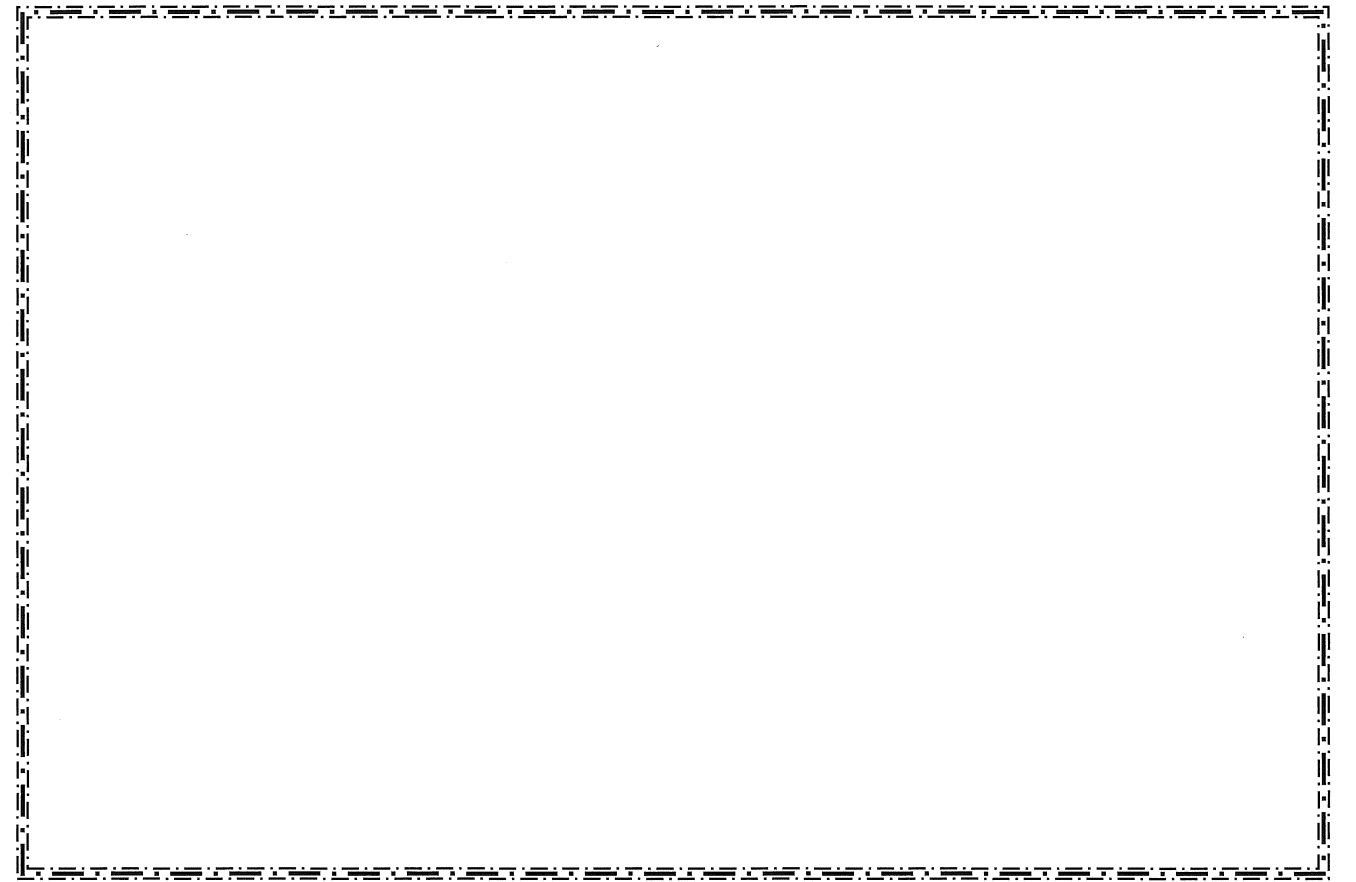
How long will my canoe be?



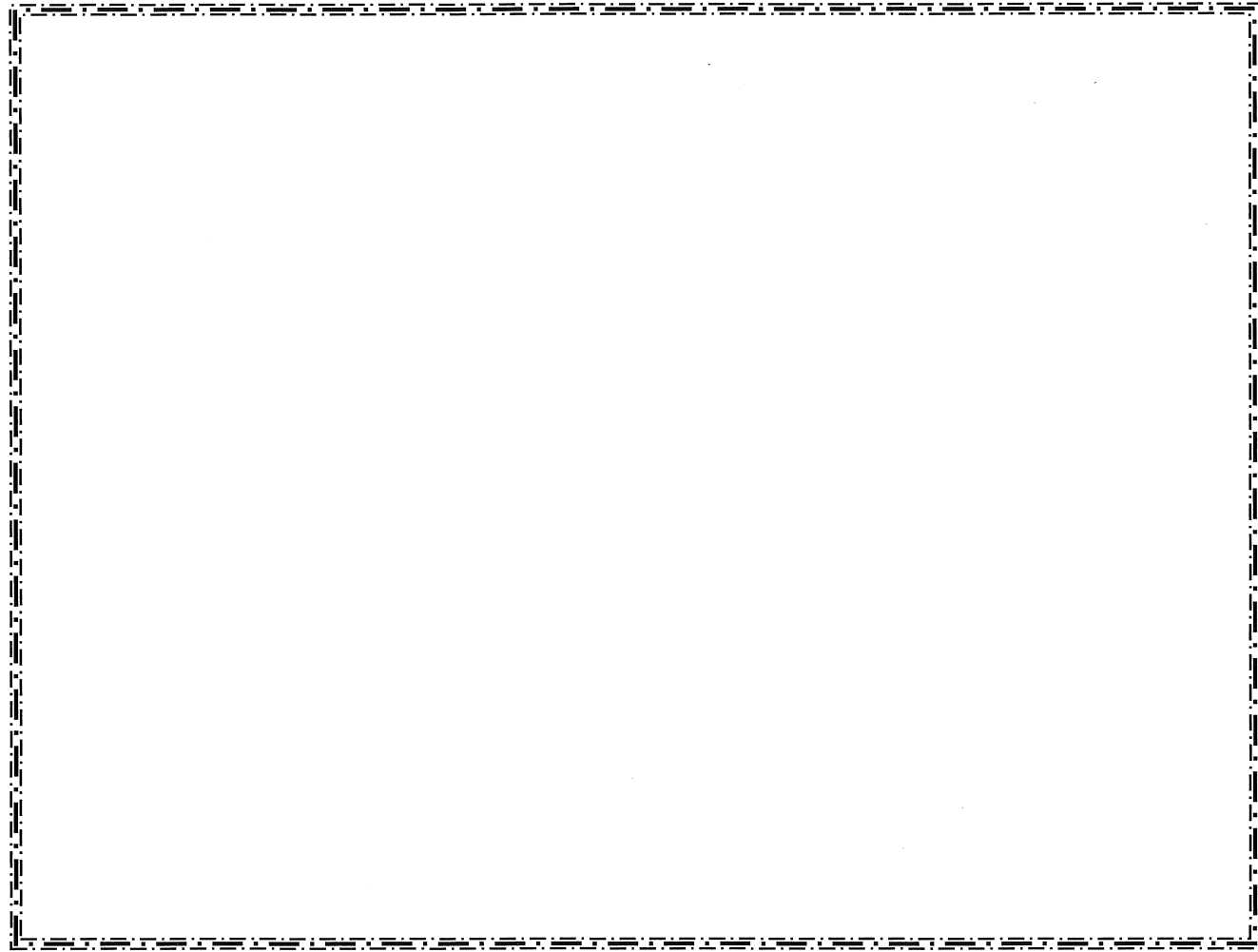
I measure the thickness of my canoe with wooden pegs. These pegs are one thumb crook long. Grandpa drills tiny holes into the bottom of my canoe. I help Grandpa hammer the pegs into the holes. He will carve inside the hull all the way down to the top of the pegs.



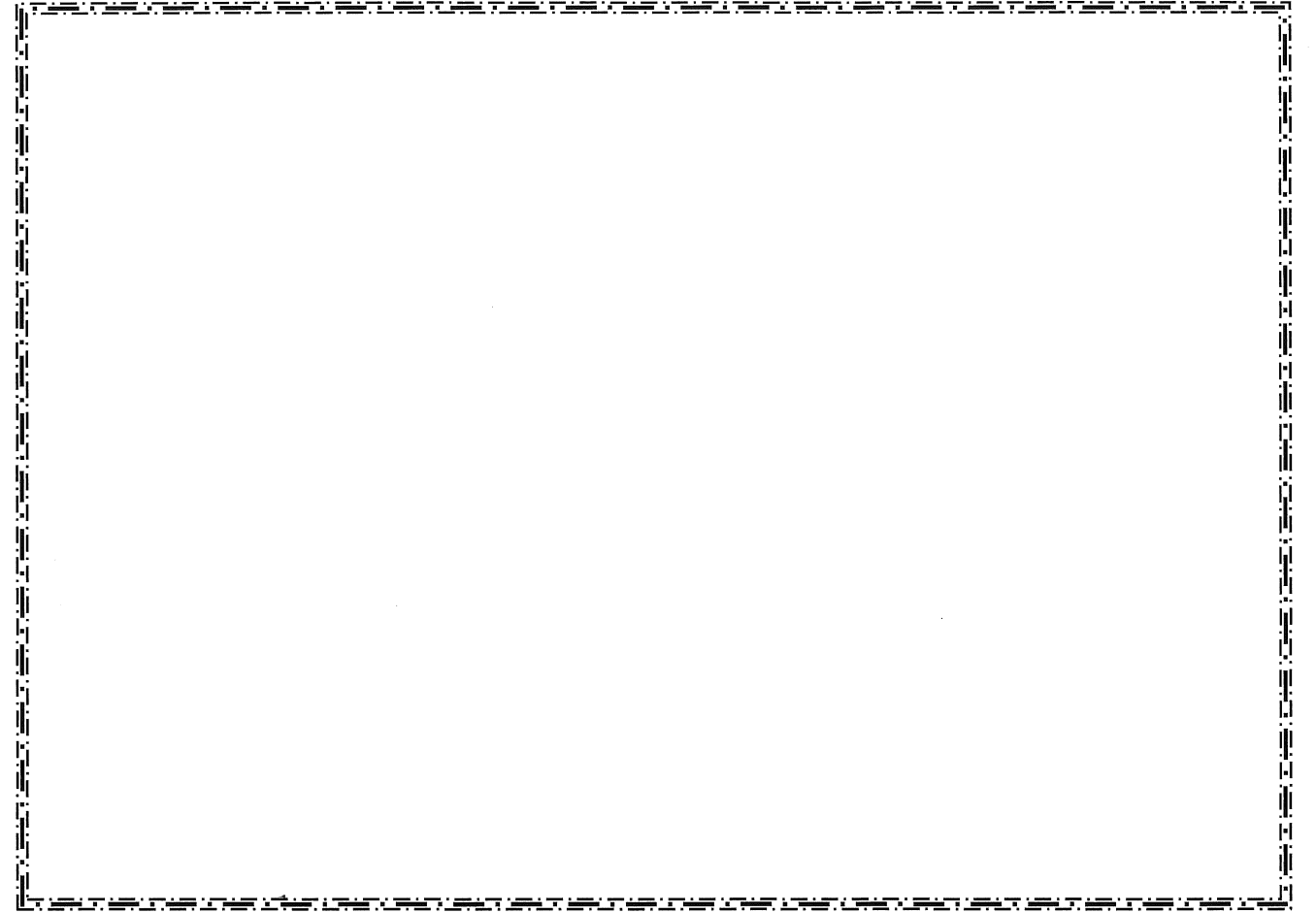
How thick will the hull of my canoe be?



I measure the length of my canoe. It is three arm spans long. Grandpa tells me that, long ago, carvers measured with their arms and fingers. Each carver had his own unit of measurement.



How wide will my canoe be?



I measure the width of my canoe. It is $\frac{1}{2}$ arm span long. Grandpa tells me the width of the tree was important to consider.