

MAKING SKIS

By Oliver Cameron
with Ole Wik

One more possibility for transportation is skis.

I had a neighbor, an old man. When he was younger he had been working in the mines in the mountains, with a poor excuse for a road. They got a big storm right after the first of the year, and couldn't get supplies in. They weren't sure that the State would open the road at all, so they shut the mine down until the spring.

This fellow didn't want to spend the time there—he wanted to get home to his family. So he took his axe and hunting knife and made a pair of skis. They were quite long, 9 or 10'.

He had to ski up gradually to get over a pass, and there it was downhill or on the level for about 20 miles to get back to a maintained road. He started out very early in the morning and made it out to that road in one day, just before dark. He was able to catch a ride into town.

When my dad was a young man, in Sweden, he cut a birch tree and made himself a pair of skis. He's use them to ski to the hamlet for dances in the barn.

One day he was ski joring behind an automobile. The best snow was right in the ditch. Everything went along fine until he hit a culvert that was completely invisible under the snow. He wasn't hurt, but he broke both of his skis.¹

Skis and snowshoes are not interchangeable. When it comes to breaking a trail for a sled or a toboggan and pulling a load and such, skis are not as versatile as snowshoes.

The way I make skis is the way that some of the trappers in the deep snow country of Idaho used to make theirs. They were for working men, for working a trap line or for moving from one cabin to another. The length depended on their use. For use in loose snow and timber, some were as long as 9', or even 10'. They were wider than the lighter commercial skis.

Material

They would look for a tree, sometimes a white fir, and cut a board as long as they wanted, about 1-1/4" thick and 5" wide. I've never made them that long. Mine were usually only about 6-1/2 or 7', something like that. That way they were more maneuverable.

Foot Rest

The footrest would be about halfway back on the board. Your heel would be a little behind the center. I'd cut it down at the front so that there was a way for your toe to rock forward a little bit. The loop that holds your foot was just a little back of that, so that your foot could rock down there a little bit when you make a step.

Front End

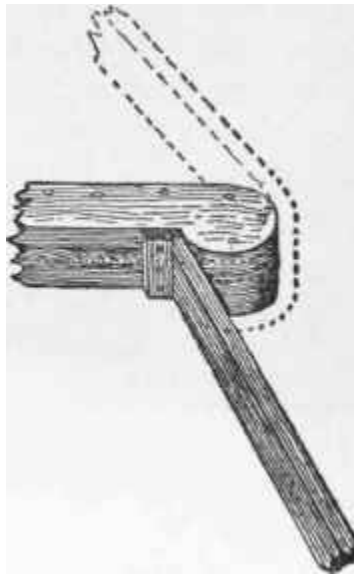
As I said, the board was 5" wide. Sometimes I left a little bit wider clear at the front.

From the footpad forward, the thickness of the board tapered off slightly until it was maybe half an inch thick. From there to where it started to turn up, it would be increasingly thin. Closer to the front it would be maybe 3/8 or 7/16".

The front foot or so would be about that thickness through the turn-up. The tip would be four or five inches off the snow, somewhat more than those on a typical ski.

These were homemade, and the radius of the bend was a matter of who made it. They didn't turn up at the front so that they were vertical—they were maybe a little steeper than 45 degrees.

If you took a block of wood that was maybe a foot in diameter, fastened a long stick on each side and let them stick ahead, and then put a crosspiece ahead of the block so you could stick the ski in there and bend it over the block, that would probably be an appropriate curve.



This setup shows the wood to be bent engaged against the crosspiece. The long sticks would be attached to the top and bottom of this form and would extend to the right, to keep the ski in place while the wood dried. Image:

<http://chestofbooks.com/home-improvement/woodworking/Beginners/Bending-Wood.html#.UvTNAvldXDU>

They boiled the wood to soften it before the bend. In those days most people had a wash boiler. They would just stick the ski into it.



The wash boiler was for heating laundry water.
Sometimes the water was heating to the boiling point in order to kill body lice.
Image: <http://mudsockacres.webs.com/apps/photos/photo?photoid=23986069>

Back End

The back is left the full thickness to the tail end, but is tapered maybe 1/2" narrower than at the front. The skis were not turned up at the rear.

Groove

On the underside, starting just back of where you thinned the board, you start to make a groove. It's hollowed out a half an inch on each toward the center. It's not the same width all the way along—it starts out narrow and gets wider and wider, until at the back of the ski it takes up most of the ski.

The purpose, I guess, was so they could fill that with a fairly soft wax. They coated it with a soft wax in that area, since it didn't wear off rapidly, and they wanted something kind of stickier. Then of course the main part of the bottom was waxed with whatever was appropriate. The skis were first coated with pine tar top and bottom and the tar was cooked in, and then allowed to dry.

Toe strap

There were two ways of attaching a toe strap. One was to drill several quarter-inch holes through the ski and chisel out the wood to form a long slot. You then slide your strap all the way through, from side to side. With that setup, you could move the strap around so that it didn't wear all in one place.

If you just have a strap running straight across your foot, you will work on the rear edge all the time. You get around that by sewing two small buckles with two small tongues on top, side by side. They were sewed on separate, and the main strap might even overlap a little bit.

With the two buckles on top, you could taper the fit a little bit. The taper would be at the back edge of the strap, to accommodate your instep. Maybe not quite the instep, but tapered to fit the toe of your boot so it could be snug at your toe and tend to keep working in farther all the time.

The other way of attaching a strap is just to nail it to the side of the ski. You cut a little notch into the ski so the strap isn't getting raked against the snow all the time.

A favorite way of fastening the foot was to cut a band from an old motorcycle tire inner tube, something small like that. It might not work right with modern big tires. In the old days most cars didn't have such bulky tires.

You would use fairly wide bands, maybe 1-1/4". You pull a band over your leg, put your toe under the toe strap, then pull the band forward and hook it under your toe. I think maybe gives you the idea. I ordinarily used them with shoepacks, not with mukluks.

Camber²

Most skis are slender in the middle and they have a camber, an upward curve in the bottom, but those that I am describing usually didn't. They would slide if you were going ahead or downhill, but more often you would use them like snowshoes, for walking. Once you got a trail made with them, you could go right along with it.

Ski Poles

Use

Ski pole use depended mostly on the person. I think the old timers preferred one pole. They could get ahold of it with both hands and brace themselves more. If they had a steep slope to go down, they'd stick it between their legs and use it as a brake.

Length

Those poles were fairly long, 7 or even 8'. When you're climbing, it's nice to have longer poles so you can walk yourself up. They were handy in another way because if you were going over a trail and it had been snowing, you could always reach ahead and knock the snow off the bushes and let it fall away so you could get through.

The poles should be flexible, and yet sturdy enough that you could put your whole weight on them if you needed to. Once in a while you are going to be putting a lot of pressure on them, sometimes using them with both hands like a paddle to protect yourself or boost yourself in some way. I guess if you laid the ends of the pole on something and stepped on the middle and it didn't break, that would be about it.

Birch saplings are pretty skookum.³ The diameter would be maybe 1-1/4" at the thick end. If I didn't have birch I would make it quite a bit larger, maybe 1-1/2". You put the basket on the big end of the stick.

I don't remember seeing a wrist loop. That would have been a matter of individual choice. I did have a thong through the top of the stick—not quite like a ski pole, just run through a hole there. I usually didn't have it around my wrist. I'd put my hand through it and grip it against the pole with my thumb. It was just something to keep my hand from slipping down.

Basket

I usually made the baskets bigger than the ones on ordinary ski poles, about 6" in diameter, using wire or whatever. I've made them by just bending a piece of willow about as big as my little finger, maybe half an inch.

About 5 or 6" from the end, I'd make two holes in the end of the pole, one above the other, with the intervening wood carved out. I'd tie a thong onto the basket, run it through the hole and back to the rim, wrap a few turns, go through the other hole, and so on all the way around.

I one time just cut the coils off some bedsprings and used those. The bottom end was a nice stiff thing about five inches in diameter.

1) This essay stems from a series of telephone conversations that Ole Wik had with Oliver between December 2007 and February 2008. Highlighted text indicates remarks made by Ole.

2) Camber is the upward arch of the ski.

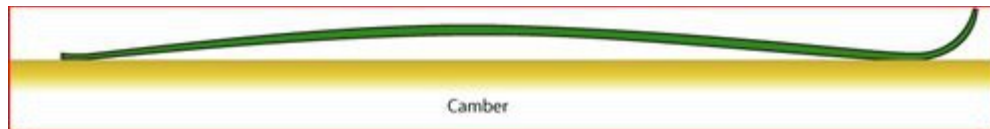


Image: <http://themountainlife.wordpress.com/2011/02/23/rocker-or-full-camber-a-new-ski-battle/>

3) Sturdy, substantial, strong. "Skookum is a Chinook Jargon word that has come into general use in the Pacific Northwest." (<http://en.wikipedia.org/wiki/Skookum>)