

TOBOGGANS AND THEIR KIN

By Oliver Cameron
with Ole Wik

Toboggans

When I moved out to the lake, I took two sleds with me. One was the little fold-up sled that I've described elsewhere. The other was a 9' toboggan that I had made. I cut two feet off the tail so that I could get it into Cy Hetherington's plane. For quite a while those were the only two sleds that I used.

That toboggan was a rather special design that I'd worked out. It was 14" wide and 7' long. I sized it to trail behind me in a single snowshoe track. I could haul a pretty good load of wood or other things.



Images: Dorene Cameron Schiro

Did you always break trail first?¹

That would depend on the snow conditions. Quite often I would go out more or less empty and come back with a load. When you make a snowshoe trail, it's not perfectly straight on the sides. Often the toboggan was part of breaking the trail as I snowshoed along, as it would tend to level the snow a little bit.

Typically I would go out and come back the same day. The snow could set up a little bit in a couple of hours, but you couldn't count on it.

I tied a chain yoke on the outside, tied on with several wraps of a lighter wire. It was on the outside of that so it would drag underneath and make an automatic roughlock.



Detail of Chain Yoke

The chain was 3' feet long and a little heavier than a dog chain—I needed some bulk there. The links were the twisted wire kind, but I have also used a welded link chain. The reason for light chain was that a rope would have worn out.

There was a short piece of chain tied to the center of the yoke, and then a towline. If the toboggan were to start to overtake you on a downslope, it would override the chain yoke, which would then act as a kind of brake or roughlock. The yoke had to be gradual enough and long enough that the sled would be fairly responsive in that kind of a situation.

When I was man-hauling the toboggan, I had a soft cotton rope, 1/2" in diameter I guess, that was doubled and had a loop in it. Some people would wear that loop so that it went down over their shoulders and around their back at the waist. I never liked that. I usually carried it over one shoulder and under the other arm. By having it over the upper part of the body, it didn't jerk as hard as it would have on my waist. The sled was probably traveling 8' behind me, or more.

I worked out something similar with the dog. I had a short piece of rope that went back a couple of feet from the harness to the end of the tow chain.

The tow chain was long enough so that some of it would still be sticking out in front of the sled after it had run ahead over the roughlock. That was important when a dog was pulling the toboggan. I didn't want the toboggan getting too close to the dog. It took a while for a dog to get used to the threat of being overrun.

The dog could usually pull the roughlock back out and get the toboggan going again. It was quite automatic, unless it got tangled up on something.



Using the toboggan in the summer. Image: Unknown, via Heidi Dammann, via Oliver
(Construction details for this toboggan are at the end of this essay.)

Plastic Sleds

Eventually I made a toboggan out of two of those little boat-like plastic sleds.



One type of plastic sled.

Image: http://www.polyvore.com/plastic_sled/thing?id=13647042

Over at Dennis's place a bear had tossed things around and damaged a couple of old plastic sleds that had been kind of worn out by the kids. I was able to salvage the front end of one and the rear end of another. I overlapped the rear one onto the inside of the front one to make a toboggan-like sled that was about half again as long as the original plastic sleds--maybe close to six feet.



Plastic-sled toboggan and load.
Images: Tonya Schlentner

The overlap of the two little sleds was about six inches. I didn't use any fasteners. Instead, I installed a piece of thin board along the center on the inside, sewed up with wire going through the bottom of the sleds. The board was maybe 3-1/2" wide and 3/8" deep.

I also reinforced the sides of the overlapped sleds. I laid a small piece of birch, maybe 1 or 1-1/4" in diameter, underneath the lip on each side and through a hole in the side of the sled just below the lip. I tied a couple of half hitches every 8" around the lip of the sled and the stick, so that the whole length of the sled was supported by the two sticks. I fastened the usual kind of roughlock to the front ends of the sticks.



Plastic sled toboggan with a load

I found that this sled would pull nicely on a wet trail, damp ground, or even bare ground. I didn't like to use the toboggan in those conditions. Eventually I got to using that plastic sled almost altogether.

I was hauling mostly firewood to start with, but eventually I made a ski sled and a lighter freight sled for that. From then on I used the plastic sled mostly for hauling jugs of water.



Sled and mail drum at the lake.

The board made a hump in the middle, and that would have been a problem when I was hauling five gallon cans or something like that. So, I'd lay a couple of loose lath-like strips to stiffen the bottom, distribute the weight, and make a flat surface for them to sit on.

I also used that sled to move stuff from the landing to the house, and occasionally for just moving things around in the yard. Sometimes I pulled it myself, but usually I used the dog.



Toboggan and load on the trail from the lake.

Sport Sleds and Ahkios

Eventually George² saw another one of those type of plastic combination “sloboggans” that was on sale. He bought one for me and brought it out, and I paid for it. It was wider, somewhat deeper, and quite a bit longer. It was originally designed to be pulled behind a snow-go.



Example of a heavy-duty sport sled.

Image source: http://www.klindustries.com/products_sleds.html



Another heavy-duty sport sled. Image: <http://www.gandermountain.com/modperl/product/details.cgi?pdesc=Pelican-Snow-Trek-60-Utility-Sled&i=435363>

I fixed it up the same way, with a little pole sewn onto the edge of each side and with a roughlock yoke. I didn't need to reinforce the bottom.

It was made of a little heavier plastic than they used for the smaller ones. The nice thing about it was that it didn't leak. That was very convenient when we got quite a bit of rain and my trail got soggy and even had standing water.

That sled was red and was about 4-1/2 or 5" deep. It was maybe 4' long and 16 or 18" wide. I remember that it didn't want to sit down in my narrow trail, so I eventually widened the places where it tended to hang up.

I seldom ever use that toboggan any more. The little plastic sleds or ahkios are lighter and much more practical. I would have never bought one, but since George brought it out, I couldn't tell him to take it back.



Example of a commercial ahkio.

Image source: <http://www.expedition.fi/greenland2008/enahkionkehitys.html>

Construction Details for the Toboggan

One day when I was out getting firewood, I cut a dead tamarack that had unusually straight grain. It was about 8" in diameter or a little over, and had been dying for quite a while. It had very little sapwood on the outside. I cut off a piece almost 10' long and saved it. It came in very handy.

Of all the woods we have in the North, tamarack is the best for making sled runners. It slides much easier than birch. It's harder than spruce or poplar and is easy to bend, though it is a little bit brittle.

If tamarack is not available, then birch would be the next hardest. Poplar is a fairly light wood. You can use it to make a semi-solid sled runner, and then shoe it with birch or tamarack.

Of course you could use hardwood for runners. Hardwood would be heavy for a toboggan, but not that much heavier. There are plans for that sort of thing, with the completely turned up toboggan bow.

Anyway, I ripped that trunk down through the middle and ripped a board off each side, about 1" thick or maybe slightly more. Then I ripped another board, about 3/8" thick. The three boards were 5" wide and tapered a little bit on the ends, since they'd come from toward the top of the tree.

I planed the edges of the thicker boards down in such a way that they were kind of rounded in cross section, so that they would act kind of like runners underneath. On a hard trail or on ice, the toboggan would slide better, and would also turn a little easier.

I cut a little groove on the inner edge of the two thicker boards, like lap strakes. Then I shaped the front 18" or so of the ends by thinning them down to about half inch, or a little less. I stuck them in hot water to soak a little bit, put them on a bender similar to what I described for skis, bent them up, and left them to dry. The front of the toboggan rises up about six inches. All these dimensions are estimates.

When you have a soft wood like that, the summer wood is going to wear away and leave the harder winter wood. I didn't want the hard grain feeding out in such a way that it would be

catching on the trail, making drag. So I attached the boards to the toboggan with the heartwood up and the butt ends forward.

I thinned the edges of the third board down a little bit more, and mounted it to the bottom of the toboggan, in the center. I attached the lips of the two outer boards so that they lapped over the center board. That way snow wouldn't come up through there.



Bottom of toboggan.

Image: Rein Dammann?

The front of that toboggan didn't curl up and around and over--it just came up like a sled runner. I cut a couple of thin boards from the pieces left over and fastened them onto the sides so that the bent part would stay up there. Those side pieces were about $\frac{3}{8}$ " thick. They were 4" high at one end and a little higher at the front, and helped everything hold its shape.

Of course I put some cross pieces about every foot or so. They were not real heavy—maybe $1\frac{1}{4}$ " wide by $\frac{1}{2}$ " thick.

Then along the edges of each side of the bed I had a little stick, maybe out of spruce pole that I had ripped in two and shaped somewhat. They were fastened on top of the ends of the

crosspieces, and helped stabilize the side boards. I had another board that held the back, and the curve of the sled held up the front. Everything was tied together.

I tied the crosspieces to the bottom. I made two holes through the bottom board for each tie-down and cut out a little groove between them to let the cord lay in there, so that there would be no cord dragging on the ground.

Then I took a strip of canvas, maybe 24 or 30" wide, and fastened it on each side to that board so that I could fold it over the contents. I had a rope along on each side that acted as a sort of selvage, and I could loop my lash rope back and forth through that.

When you're breaking a trail for a toboggan in soft snow, some of the snow that is piled up along each side of the trail invariably wants to tip over onto the sled. The purpose of the canvas was to cover the load. You could then knock most of the snow off, rather than having it all down through your load.

How did you fasten the selvage rope?

I think it was just fastened to the edge strips that were on the inside of those edge boards, and came through the edge boards through a hole.

I had spruce sapling quarter round just on the inside of the side boards, resting on the crosspieces. There was a gap between the quarter round and the bottom of the sled, because the quarter round was sitting on top of the crosspieces. But the sidepieces came down and sat right down on the sled floor.

I made holes through that side board and put the rope around the quarter round that helped fasten it to the sled, and brought it out through another hole.

That side board was notched to fit over the ends of the crosspieces so snow couldn't get in. The 1/4" selvage rope pretty much filled up the holes.

My selvage was a piece of ugruk rope or something, maybe a piece of moosehide. It went through a hole near the bottom of the crosspiece, around the quarter round, and up and out through a hole near the top of the quarter round.

I didn't put any half hitch over that, but I stretched it fairly tight for a ways and did the same thing again. I suppose the holes were 18" apart.

The selvage rope runs on the outside for 18", through a hole underneath in the sidepiece below where the quarter round is, and out. The in hole was above and the out hole was below the quarter round (or vice versa). The cloth was sewn through holes to the top of the side boards.

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) George Hobson, pilot.