

FROE

By Oliver Cameron
with Ole Wik

A froe is basically a side-cutting chisel with a handle. The sharpened edge is away from the handle, and you strike the upper edge.



One of Oliver's froes
Image: Cold Climate Housing Research Center

Suppose you are splitting shakes to use as shingles, starting with a block of wood, maybe 16 or 20" long or whatever.

You set your froe on top of the block of wood, with the handle vertical and the blade back maybe 3/4" from the edge. Using a wooden club, you drive the blade down into the block to start your split. Then you pull on the handle to widen the gap and split that piece off. The handle is 16 or 18" long, so you have good leverage.

The thin boards that you split off of the stiff block tend to be tapered a little bit, and they're usually a little bit rough on the lower end, so you usually turn the block over and split the next shake starting from the other end.

Once you have a pile of blanks cut out, you can take your drawknife and true them up a little bit, if need be. To hold the shakes in place while you're working on them, you can make a shaving horse. You put the end of the shake under the crosspiece and pull the crosspiece with your foot lever to clamp it down. I've seen those shakes. Some call them shooks.



Shaving horse, as used by some artisans in Cantabria (Spain).
The user pushes the pedals forward to clamp the work in place.
Image source: http://en.wikipedia.org/wiki/Shaving_horse

I also use my froe for splitting a pole. I drive the blade into the end, with the handle parallel to the pole. As I pull on that handle, the blade pries the two sticks apart. The cutting edge is against one part, and the heel is prying against the other.

You don't want to try to split the pole by just driving the froe down through it. That would cause the split to run off a little bit, because the blade is only sharpened on one side. Instead, you just split it ahead a little ways, slide the froe a little farther down into the split, and do it again.

For that, the handle has to be long enough to have good leverage. If the blade is 3" wide and your froe handle is 15" long, you'll have quite a bit of leverage against the stick you're trying to split.

With a small willow, you don't need leverage—you can just pull it apart with your hands. In some circumstances, I just use a knife. The grain in the willow will want to start twisting, so I'll use the knife to keep it splitting more or less down the stick.

I have a hunting knife with a sturdy handle. The blade is about 1-1/4". That knife is made in such a way that I tend to drive on the back of it to use it as sort of a froe, or for cutting anything off across the end.

My froe is a little wider than most froes. I like it that way. I had it made special so that I could drive it farther. It's one thing when you are using cedar that splits easily, but it's something else again when you're trying to split poplar or spruce. Even two spruce

blocks will be different, so I like to have my froe deep enough so that when I have driven it as far as I can with the froe club, I can spread it quite wide.

I made a frame for splitting things that are a little bigger than willows. It looks like a short ladder with only two crosspieces nailed to the uprights, toward the top. The uprights are about four-and-a-half to five feet long and are parallel to each other, maybe two feet apart. The first crosspiece is down a little bit from the ends of the poles.

The frame is actually not lying on the ground when I use it; it's standing up and leaning at about a 45-degree angle against a couple of little trees, maybe a foot or so apart. Since the ends of the uprights project upward, it will stay there. It can't tip over to the side.

The frame rests on the top crosspiece, which is on the side that is toward the trees. The lower crosspiece is on the side away from the trees, and is about three inches farther down the uprights from the lower edge of the first one.

To use the frame, I poke the end of a stick through the gap between those two pieces, more or less parallel to the ground. I pound the froe into the other end, pull on the handle, and tip it to start my split. As the split proceeds, I pull the pole out of the frame, bit by bit.

I push down on one side a little more than the other side, which is more or less free. Sometimes the split is kind of long, and I'll have the top half of the pole on my shoulder and push on the lower one alongside of me.

If the split starts to run off, I have to bend one side more than the other. With this outfit, the only way I can do that is to bend it down toward the uprights. If need be, I turn the work over half a turn and push the other side down.

When a tree grows, it adds new wood onto the outside. That sapwood eventually becomes heartwood. Every year the tree gets taller, which means that the outside of the tree is making the added shoot that's right on top.

A bush or a tree tapers. If you start splitting from the butt end, the grains from both sides are feeding toward the center, so the split doesn't tend to run off to the side. But if you start from the top and start to split down, then the crack wants to follow the grain and doesn't want to split to the center.

Some wood is quite free splitting, and you can split any old way. But the same type of wood, grown under different situations from other trees of its kind, can be very difficult to split.

The Eskimos and the Indians are well aware of that. They didn't used to have buck saws or rip saws and so forth, so they were very sensitive to having a stick of wood that would split true and easy.

There is a place that is named because the wood there is easy to split. I don't remember the terminology.^{1,2}

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) There is a little stream called Quapsissut about three miles downriver from Ambler. The place name means something like “they split easily.” Indeed, the cottonwoods there split like a dream. In 1964, I used them to make boards for a small table.

Tommy Lee also used splits from there to made his under-ice mudshark (burbot) trap. In the image below, the tops of the logs protrude from the ice are between him and the dogs.



Image: Ole Wik

For more on mud sharks, visit the Alaska Fish & Game Department website, <http://www.adfg.alaska.gov/static/education/wns/burbot.pdf>, or the Alaska Nature website at <http://www.alaskannature.com/burbot.htm>.