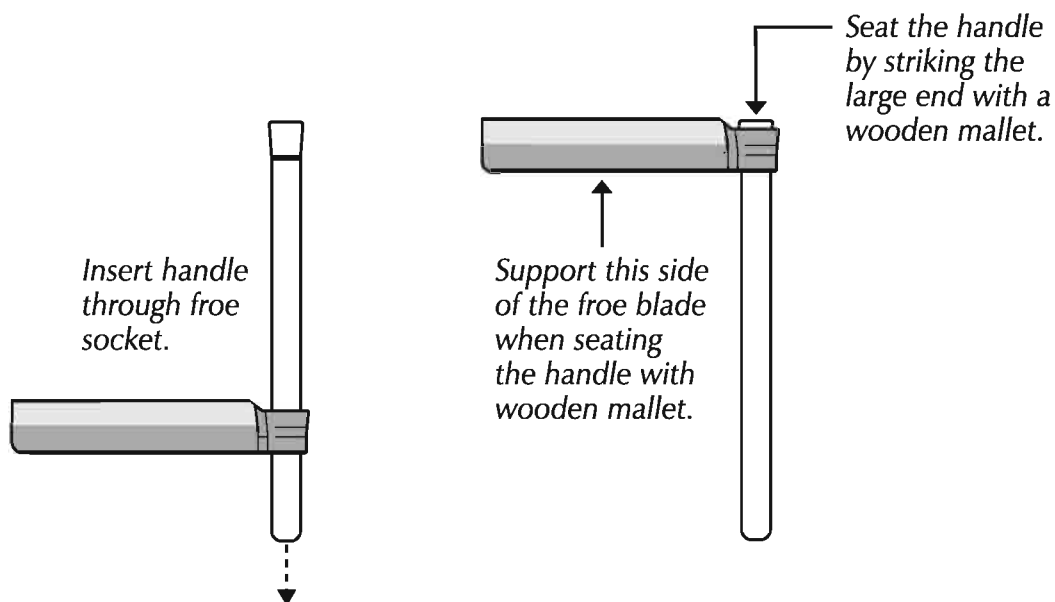


USING A FROE

The first thing you do is insert the handle through the bottom of the socket and seat it well by striking the wide end with a wooden mallet. Make sure the handle is well seated and cannot wiggle at all in the socket. It does not matter if part of the handle extends below the socket. Over time and use it will get compressed and will extend less. If the handle works free in use, secure it again with a mallet. **Note: Never strike a froe with a steel hammer, axe, or sledge. Over time it will destroy it.**



To understand how a froe works you have to use one. A froe is not used to initiate a split in material that has a diameter greater than 6". For larger diameter or longer billets use a splitting hatchet or wedge to initiate the split. The froe is then used to advance the split. This process is called riving.

General Guidelines

1. For best results, use freshly cut green timber for riving; the process is most controllable with fresh stock.
2. Avoid using material from branches because they usually contain reaction wood that splits poorly.
3. Avoid very close-grained oak, ash, or hickory. Such ring-porous hard woods can be weak if the annual rings are only 1/32" or 1/16" in thickness.
4. Conversely, thinner annual rings are preferable if splitting conifers; use close-grained stock.
5. Most riving should be dividing billets into two equal pieces, starting the split with the froe in the exact center of the stock. Such splits are easier to control.

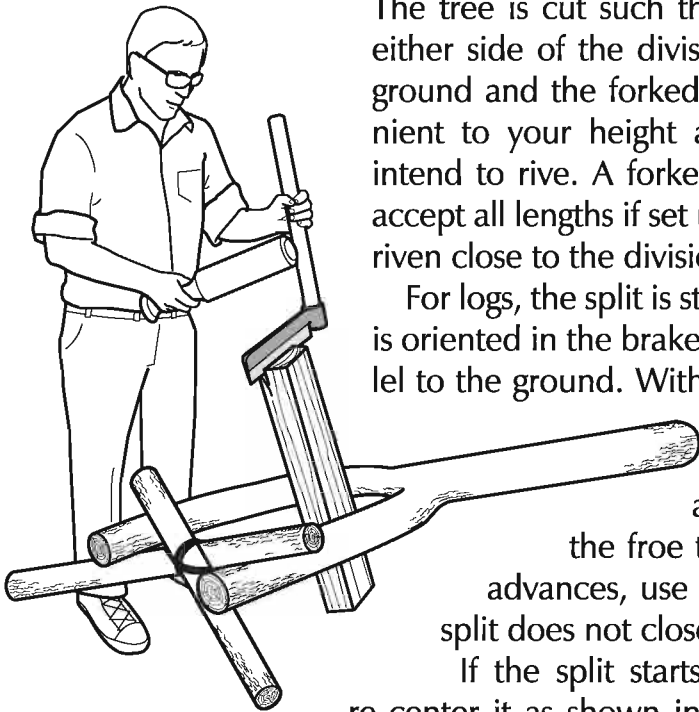
- When riving long pieces such as material for snowshoe frames, chair bows, or canoe gunnels, proceed slowly and carefully, immediately putting more pressure on the thicker side if the split starts to run off-center.

As chair-maker Dave Fleming of Cobden, Ontario says, "Listen for a nice even splitting sound like a slowly pulled zipper".

Using a Riving Brake

Unlike most other woodworking tools, a froe requires a companion tool that you cannot buy; you have to make it yourself. It is called a riving brake.

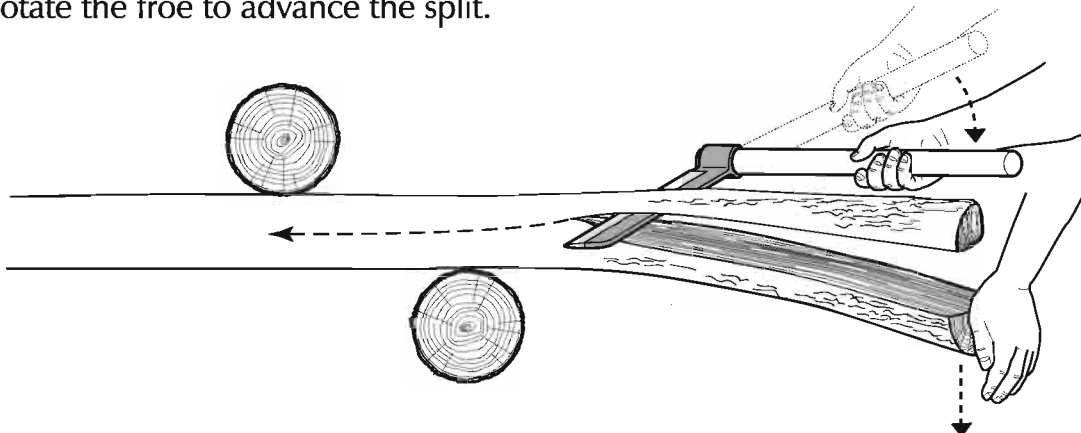
Riving brakes can be made many ways but most people riving green wood start by making a brake from a tree that has a double leader. These are easy to find in any woodlot.



The tree is cut such that you have at least six feet on either side of the division. The trunk end rests on the ground and the forked end is fixed at an angle convenient to your height and the length of material you intend to rive. A forked trunk like the one shown will accept all lengths if set up correctly. Short lengths will be riven close to the division and long logs farther away.

For logs, the split is started with an axe or wedges and is oriented in the brake so that the split is close to parallel to the ground. With the froe blade centered on the log and parallel to the ground, drive the froe into the log with a wooden mallet and then lever the froe to advance the split. As the split advances, use a wedge behind the froe so the split does not close on the froe.

If the split starts to wander off-center you can re-center it as shown in the diagram below. Be sure to keep the tip of the advancing crack close to or directly on top of the lower support log for this correction process and press down on the lower part as you rotate the froe to advance the split.



As in any form of manual woodworking, you improve with experience. Very skilled workers can split saplings by hand after the initial split is advanced enough that they can grip the split parts one in either hand. They use their legs to function as the brake and control the splitting action by manipulating the sapling as necessary and separating it only with hand strength. Do not expect to be able to do this the first time (or the tenth time) you try it.

Gaining Experience

There are many little tricks to learn in using a froe. For example, if there are any knots in material, you must split between them or not split at all. You determine how to orient the split by ensuring it will be centered between knots, not through them. Currently, there are no books published that cover all aspects of froe use, but there are websites that cater to people in the field. One of the best is www.greenwoodworking.com.



Blade Maintenance

Key to maintenance of the blade is, first of all, never hit it with anything but a wooden mallet. Secondly, it does not have to be sharp. It just has to have a blade that has the curved bevels shown but the edge must be dull. A flat of 1/32" on the edge is about right.

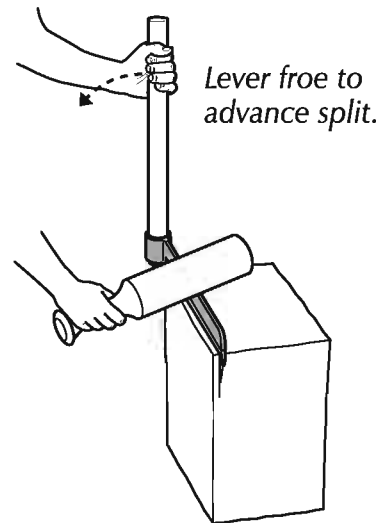


What not to do with a froe.

1. A froe is not usually used to initiate a split in logs over 6" in diameter. It is used to control the split as it is advanced. In such wood create the initial split with wedges, an axe, or a splitting hatchet.

You can use a froe for splitting smaller diameter stock.

You can also use the froe to initiate the split when making shakes from dimension stock of straight-grained wood like cedar but only after you have squared the block to get rid of juvenile wood. In such a case you push or pull the handle toward the material you are splitting off the block. This causes the shake to taper as the split advances. You then turn the block over to start the second shake from the opposite end.



Making shakes.

If you are splitting shakes from straight grain hardwood (like oak) you will usually find that it tapers very little and you will have to use a draw knife to create the taper you want. In this case you would usually not have to invert the block for subsequent splits. In most other uses of the froe, you are controlling the advancing split by pushing the froe handle toward the thicker part of the wood being split in order to get consistent thickness of the piece being split off the blocks.

2. Do not sharpen the edge of the froe. If you do, you will cause it to cut into the wood as you advance a split, particularly when you are trying to influence the cut by pushing or pulling the froe handle to influence the direction of the split. If you are intending to split shingles or saplings, you might want to reduce the width of the flat on the edge but do not make it sharp.
3. Do not strike the froe with steel hammers or sledges. It willpeen the back of the froe and eventually destroy it.
4. Avoid trying to split knotty wood. It is a source of frustration.

Miscellany

- ▶ The froe is painted to avoid rusting. Some of the paint will wear off in use.
- ▶ When striking the froe to advance a split, always strike as close to the center of the blade as possible.
- ▶ For more information on froe use go to:
 - <http://thelibrary.springfield.missouri.org/lochist/periodicals/bittersweet/fa81c.htm>
 - www.greenwoodworking.com



Designed and imported by:
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Almonte, Ontario, Canada K0A 1A0
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