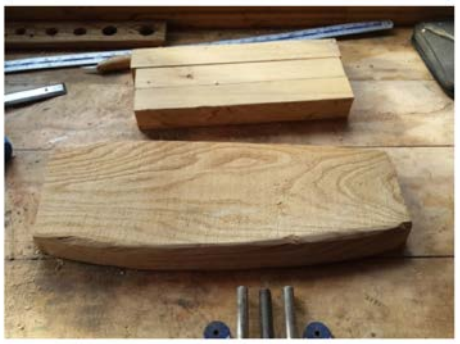
HOW I MAKE
A THREE LEGGED STOOL
Author: Alan. Tidy, Sceaftesige Garrison

Tools I used: A saw, a wood chisel and a mallet, a ruler, an electric drill, a spade / auger drill bit of 1 inch diameter and a plane.

Optional tools: A ½" thin, 6" long, narrow plank with a 1 inch hole cut in it (a "portable hole"), some sandpaper and some linseed oil or varnish, to protect the stool. A protractor.

Materials required: Legs: Hardwood: 1 ½" x 1 ½" x 4 - 5ft long [Notes1 & 2]
Seat: A plank of hardwood 1 ½" x 12" x 18" [Note 2]



The Seat: Making the seat and drilling the holes for the legs.

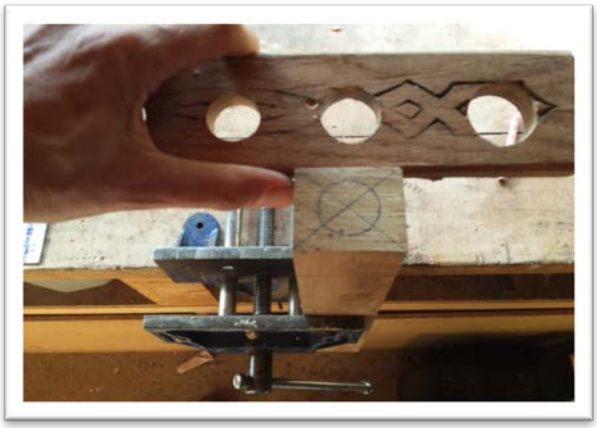
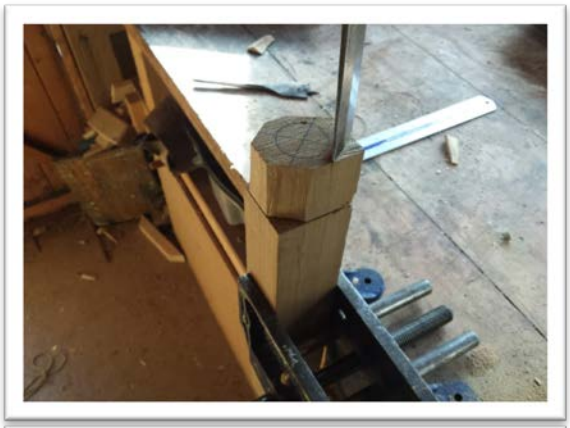
1. Cut your seat to your desired shape.
   a. Larger / oval shaped seats are more comfortable than circular ones (consider the shape of your bottom!). Avoid bowl blanks, as they're usually too thick and, well, look like bowl blanks.
   b. The wood used in the photos was a scrap piece begging to have a purpose.
2. Determine the location of the three leg holes for the legs.
   a. For strength of construction, allow about two inches gap between the outer edge of the hole and the edge of the seat.
3. Determine the direction that each leg should point.
4. Drill the holes for the legs at a slight outwards angle (about 10 degrees [Note 3]), radiating away from the centre of the stool, through the <u>top</u> of the seat.
   a. Placing a scrap piece of wood under the seat at the exit point of the hole will minimise tear-out and stop you drilling into your work bench.
   b. When drilling the holes, any change in the angle will deform the shape of the hole, which, later on, will cause problems in the leg fitting well. An auger drill bit will reduce the chance of this happening, as will using a sharp drill bit. Auger bits are more expensive, though

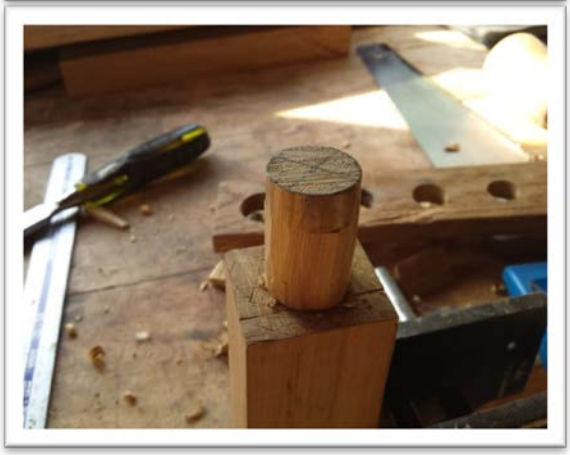
Legs: Cutting the legs to length and making them fit the holes in the seat.

5. Chop the leg wood into 3 equal lengths.
   a. The modern height of a seat is about 17 inches. The exact length, however, is not critical.
   b. If you have plenty of wood and this is your first attempt, cut off each leg one at a time, and a couple of inches longer than necessary. This will allow you to not only fine-tune the length of the leg, but allow you to have a second go if stages 7 – 8 go badly.
6. If it is not already, make the leg round.
7. At the centre of the end of the leg, use either the holes in the seat, or your "portable hole" to draw a circle.
8. Draw a line around the leg 2 ½ from the end.
   a. This is the depth of the tenon (the narrower part of the leg) that goes through the seat base. As it is going in at an angle, it needs to be longer than the thickness of the wood.
9. Use the saw to cut into what will be the "shoulder" of your leg, to about the depth of the wastage.

Cont'd

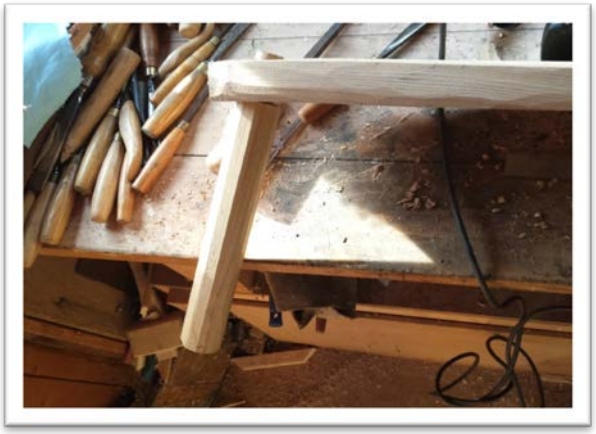
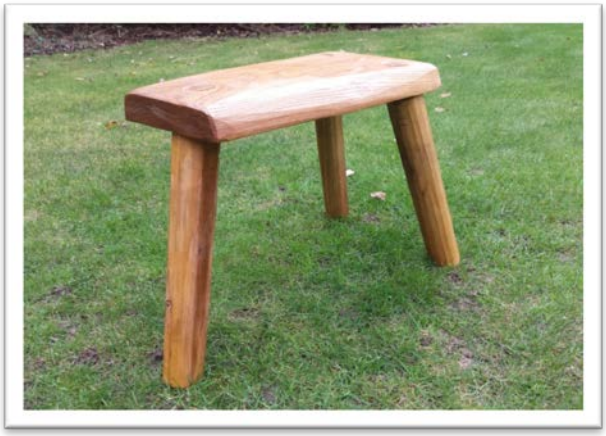
10. Using the mallet and chisel, and starting from the near the outer edge, remove the waste wood.
    a. The benefit of having straight-grained wood will be evident here, as the wood will come off easily.
    b. When most of the wood has been removed, check the tenon for fit.
    c. Slowly remove more wood until the tenon "just" goes through the hole, all the way to the shoulder of the tenon.
    d. Take your time. The legs needs to be a tight fit, otherwise they will fall out.
11. Repeat for all three legs.



Optional: Finishing: Protecting it from the abuses of re-enactment (rain, ketchup or wine).

1. Remove all mechanical tool marks with sandpaper and round off upper edges of the seat.
2. Liberal dosing of teak or boiled linseed oil will aid water / wine repulsion. Alternatively, varnish it with polyurethane varnish.

Notes:

1. A straight branch of about 2" diameter is best. Remove the bark and the outer (sap) wood. Leave it to dry (season) before working. In the shed or outside, under cover is best.
2. All dimensions are approximate – use what wood you can. Don't use plywood! Convert it to metric yerself!
3. If you haven't got a protractor, angle the drill bit at 45degrees, halve it, and then halve it once more. Again, the angle is not hyper-critical; make sure they're all about the same.