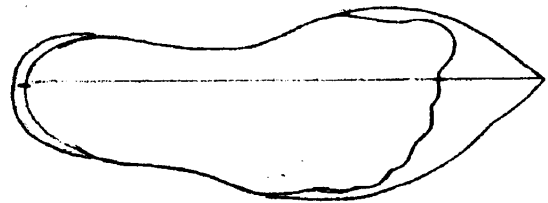
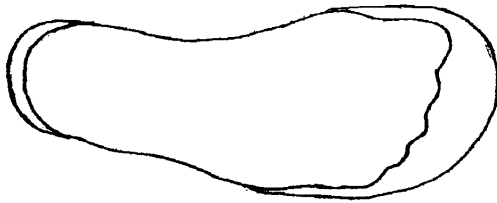


Make your own Boots!

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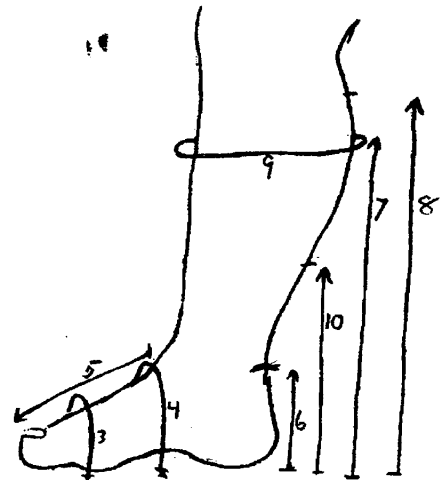
Boots--measurement:

1. On a piece of heavy paper, trace around your foot as you will be wearing the boots (with socks, etc.) Try to keep the pencil upright as you trace, if you tilt too far out your sole will be too small. Get a friend to help with this as you really need to put your normal weight on your foot as it's traced and measured. Make a mark where the ball of your foot is, as well as the arch and ankle.
2. Draw the sole outline. Using the tracing of your foot, freehand sketch out beyond the toe about 1" the curve you wish your boot to have. Bring it around the little toe a bit, say 1/8", to give your foot some room. If you want pointed toes, take your foot tracing, mark the middle of the heel and a point near your second toe. Draw a straight line connecting the two and extend it beyond the toes at least 1". This is where the point of your boot will be. Sketch in the shape of your sole leaving a little room for your toes as above. Add in an extra 1/4" at the back of the heel. Now draw a line an 1/8" out from the edge, all the way around. (This is your seam allowance, where the stitches will eventually be.)



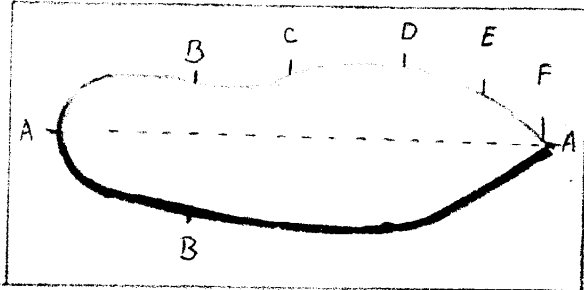
3. Measure the ball of your foot. From the floor, measure across the top of your foot to the outside edge past your little toe. This is usually the widest part of your foot. Write all these measurements down.
4. Measure the arch of your foot in much the same way as above, beginning at the floor below the arch of your foot (not under but straight down), go across the top, straight to the floor on the other side.
5. Measure from the top of your foot down to the big toe.
6. Measure how high you want the quarter to be. This is usually around 3".
7. Measure the height from the floor the widest part of the calf.
8. Measure from the floor to where you wish the top of the boot to be.
9. Measure the circumference of the calf.
10. Measure the height from the floor to the bottom of calf.

Hopefully, this will illustrate what I mean:



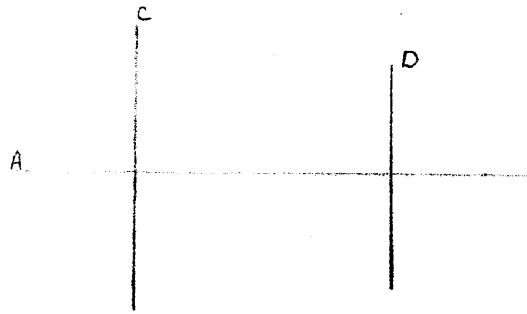
Drawing the Pattern:

1. Read everything over first.
2. Take your sole pattern, lay it on another piece of construction paper and mark out the center line, the arch line, the ball of the foot, the ankle on both sides, and the toe (actual as well as the sole toe.)

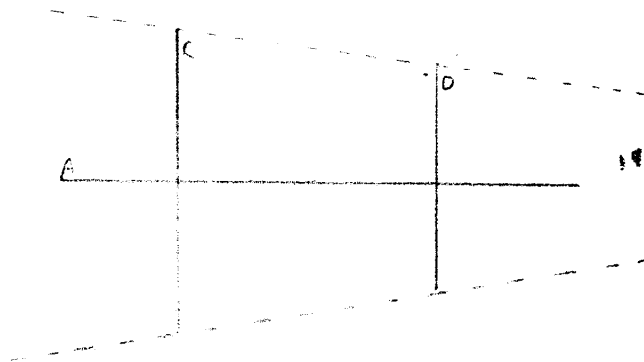


- A. Center
- B. Ankle
- C. Arch
- D. Ball
- E. Actual Toe
- F. Sole Toe

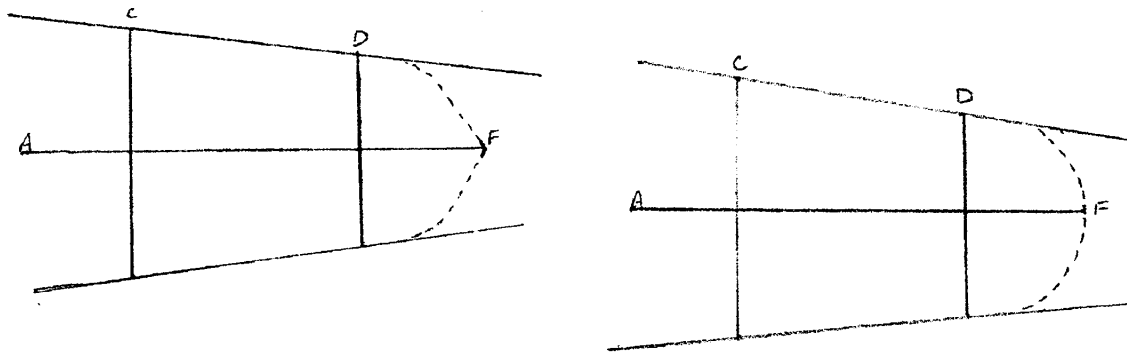
3. Remove the sole pattern. Draw the center line. Take your arch measurement and draw a line, perpendicular to the center line, where you made your arch line mark. This should be centered on the center line. For example: if your arch measurement is 8", you should have 4" on each side of the center line. Do the same with the ball measurement.



4. Now take your ruler and connect the ends of the two lines, extending it in both directions past the actual toe and the arch.

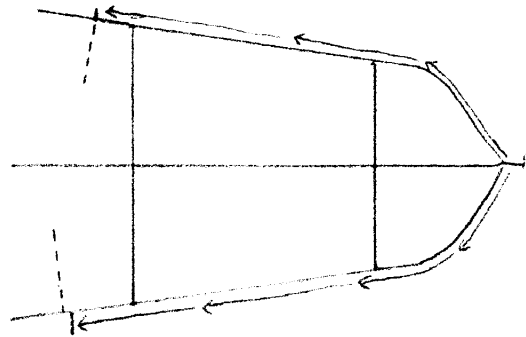


5. For a pointed toe, start at the point and freehand draw a curved line out to the left side. Repeat for the right side. A round toe will be basically the same, but rounded, not pointed!

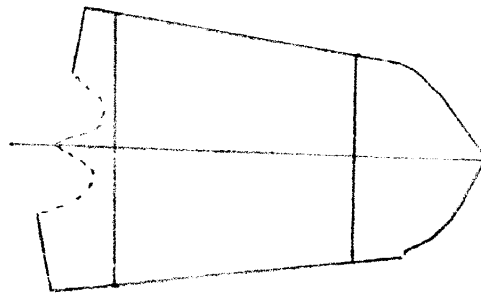


6. Now, go back to your sole pattern, take a flexible sewing tape measure, start at the front center and measure the left side back to the ankle mark. **Measure on the inside seam line, not the outer edge!** Write this measurement down on the sole pattern. Then measure the right side. While you are at it, measure around the heel, from the left ankle mark around to the right. Write this down, as well.

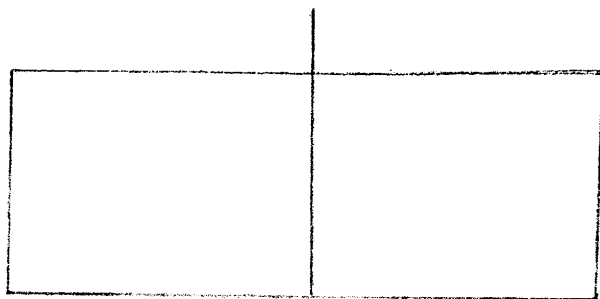
7. Go back to your vamp pattern, and using the above measurements, begin at the point or center front and measure back along the line on the left, the same length as your measurement and mark. Repeat for the right side. Draw a line, beginning at this mark, at a right angle to the outside line, the same length as your quarter measurement. Do this on both sides.



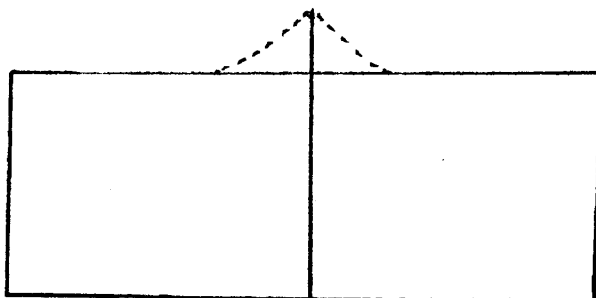
8. Freehand draw a curved “j” shaped line from the center line to the end of the lines you drew in step 7. This is probably going to be adjusted later, so accuracy is not crucial.



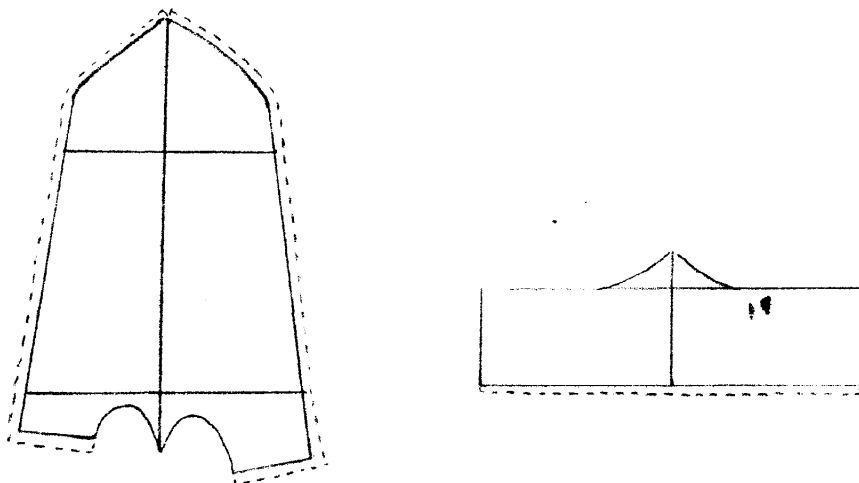
9. Now draw the quarter. Draw a center line on a new sheet of paper. Use your quarter measurement once again (the height measurement,) then add one inch. Take the length from ankle to ankle (see step 6) and draw a line, at the bottom, perpendicular to the center. Center this measurement on the center line as you did for the vamp. Draw another line parallel to the bottom at the quarter height. Connect the ends to make a box.



10. Freehand draw a curved line from the top of the center line to the top of the quarter. Repeat for the other side.



11. Go back and add a 1/8th inch seam allowance around the vamp and quarter (as shown.)



Boots--construction:

I have found it useful to construct a mock-up of your pattern out of cheap vinyl before cutting into expensive leather! Once you've sewn up the vinyl boot, you can see if any adjustments are needed.

1. Read everything over once.
2. Trace and cut soles.
3. Punch holes in soles.

4. Prepare quarters: Not difficult! Fear not!

The quarters need to be two layers of leather glued together for stiffness.

A. Trace quarter pattern on flesh side of leather that will be on the inside of boot.

B. Cut these out.

C. Place these pieces flesh-side-down on the flesh-side of the leather you want on the outside of boot.

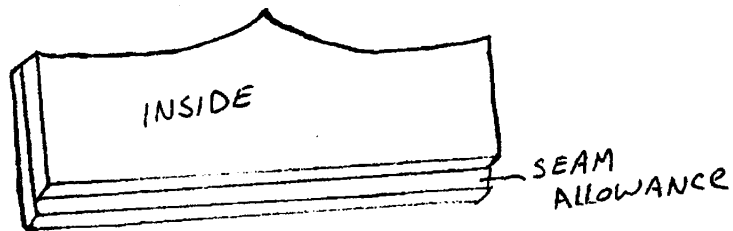
Be sure the grain side is free of scars, etc. Trace the shape but **do not cut yet**.

D. Spread glue (rubber cement--Barge is a recommended brand) over the pieces you've already cut out (flesh side, of course) and over the areas you just traced. Don't worry about staying inside the lines; in fact spread it about 1/4-1/2" outside the lines.

E. Let glue dry according to package directions. (About 20 minutes for Barge)

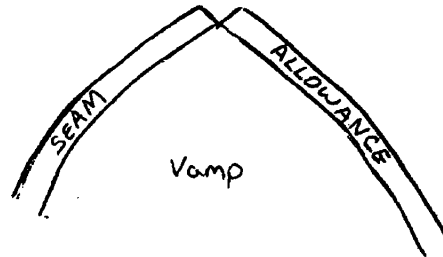
F. Put the cut piece on the traced piece and pound with a leather or rubber mallet. Now you need to let these dry for several hours or overnight.

G. Now you can cut them out. The inside pieces have and need no seam allowance along the bottom, but the outside pieces need an allowance of about 1/8-3/16", equal to the allowance of the vamp pattern. Draw this onto your leather before you cut.

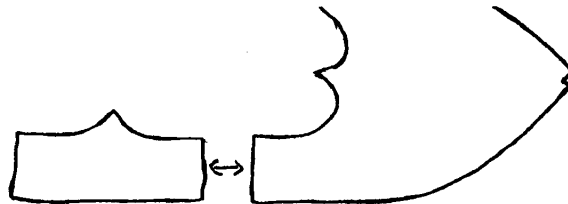


You glue before cutting to prevent distortion between the two pieces!

5. Trace and cut vamps. Don't forget that seam allowance! If you choose the pointed toe, then the seam allowance on the vamp, at the point, should look like this:

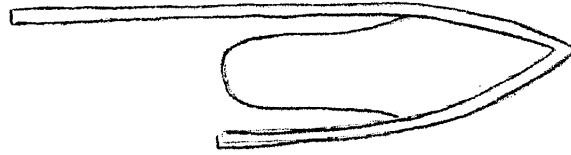


6. Close the uppers. A technical term meaning "sew the vamp and the quarter together."



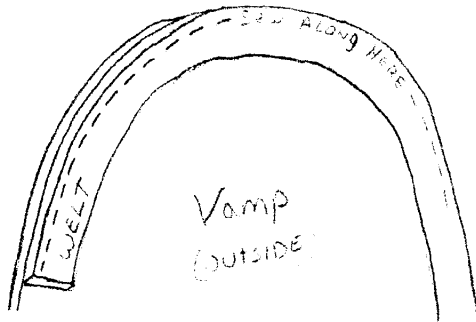
I prefer to have the vamp overlap on the outside.

7. Cut welts. If you've elected to make round-toed boots, then measure around the outside edge of the soles, add a couple of inches, and cut a straight piece of leather about 3/8" wide to that length. That is one welt. Cut another. For pointed toes, it's a bit different. Place your sole, ground side down, on the leather. A straight strip of leather will not conform to such a point as the toe of your boot, so cut the welt to the shape of the sole. Like this:



The long thing is the welt. Notice how it is cut to the shape of the toe. That's all the shape it needs; a straight strip can conform to the other curves. I have drawn it shorter on one side because I prefer to have the ends meet on the side of the boot rather than the back.

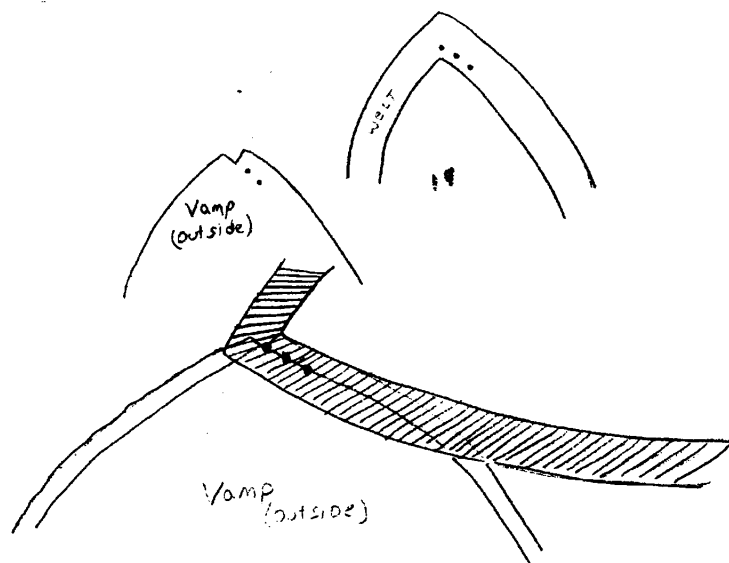
8. Sew the welts to the uppers. Again, if you're making round toes, this is easy. Just sew it to the edge of the upper:



Remember to sew about 1/8" from the edge. You'll need the rest of the welt to attach the upper to the sole. Start on a side not the toe.

For pointed toes: start at the point, work back from there, on the inside edge of the boot first. Poke 3 holes in the welt first.

Now put two holes in the upper (vamp.)
The "V" is the first "hole."




So the whole set up looks like this:

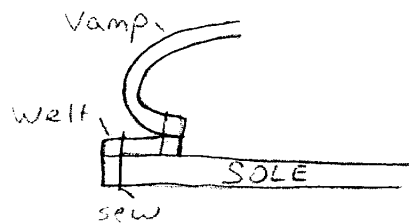
I know it looks awkward, but it works. Trust me. Sew this side down, but do not go as far as where the quarter is joined to the vamp on the inside edge. Stop a bit short but do not finish the seam off just yet.

Now, start again at the point, using the same first hole as before. This may feel awkward at this point: you need to fold the seam allowances under:

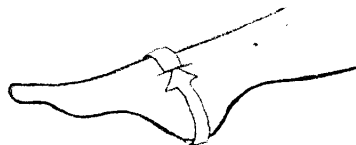


If you get lost, try it with cloth (or vinyl) first. This is not that difficult to do just hard to explain. To finish the welt, cut the ends where they come together at a bevel  So they meet and look nice. Over stitch instead of knotting.

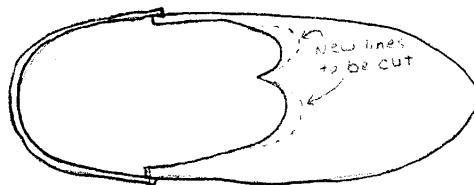
9. Sew the welt to the sole. Start at the center or point of the toe. I recommend doing this in two steps: sew the inside edge down almost to the quarter, then start on the outside edge, just in case the upper doesn't fit the sole (it happens, and it's a drag, but it's almost always fixable.) Basically it looks like this:



10. Measure the interior circumference of the opening (through which you put your foot.) Measure both of them and write them down.
11. Measure around your foot, like this:

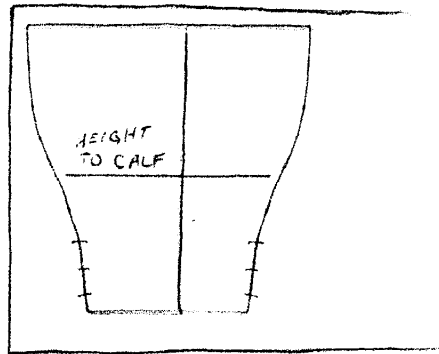
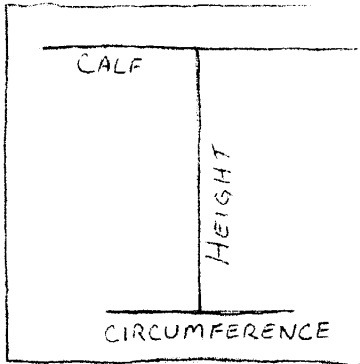


The figures from step #10 should be at least as much as this measurement. If the opening is too small, then you simply need to make the opening larger.



If the opening size is, say, $\frac{1}{2}$ " smaller than your foot measurement, then your revised lines should be between $\frac{1}{4}$ "- $\frac{1}{2}$ " beyond the original lines. Don't remove too much at once: it's better to measure twenty times and get it right than to measure once and mess up an otherwise perfectly good boot.

12. Cut open a brown paper bag into a long rectangle by cutting off the bottom. Great pattern paper!
13. Draw a line equal in length to the circumference of your boot opening.
14. Bisect that line, and draw a line perpendicular to it as high as you want your boots.
15. Measure around your calf at the highest point your boots will reach, or around the widest part of your calf if the boots will go above the calf. Draw a line of that length perpendicular to the second line at the appropriate height:

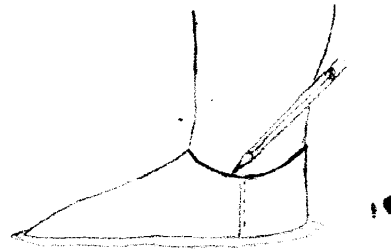


Freehand a curve to fill in the leg shape. Consider the circumference line to be the ground and come up 3" before curving out: your quarter is about 3" high, so the circumference measurement is for 3" above ground.

16. Add seam allowance and trace this pattern onto your leather.
17. Cut pieces out.
18. Starting at the top of the leg, sew down to within about 2-2 1/2" of the bottom. Do not finish this seam yet! Sew the leg up inside-out:



19. Turn leg right-side out.
20. Insert leg piece into the upper. Adjust to a point at which it looks like a boot. Stuff a T-shirt or towel into the leg to provide bulk, especially for the next step.
21. Trace a line along the edge of the upper onto the leg. Be sure the leg seam is lined up with the point of the quarter.



22. Pull the leg out, remove T-shirt.
23. Turn it inside-out again.
24. Pull out stitches (if necessary) to the point where the line you just drew crosses the seam. Finish the seam here. Again I recommend backstitching as opposed to knotting.
25. Turn the leg right-side out **AGAIN**.
26. Cut along a line about 1/2" below the line you drew, to remove excess leather from the bottom of the leg.
27. Sew the leg to the upper. Use the line you drew as a guide to keep the leg in place. I recommend starting at the point of the quarter and poking 3 or 4 holes in both pieces to get started. From there, and in general, I poke my holes one at a time, as I go.
28. If you put the flesh side of the sole on the outside, then rough it up and glue a layer of light leather to protect your stitching. You may want to add a layer or so of sole leather to the heel to protect it as well. Now you are done!

Notes:

I would like to thank Sir Ivan and Master Istvan, who taught me to make these boots one hot, July afternoon at a camping event. From a few scribbled notes and drawings on scraps of paper I made my first pair of boots. I know you can too! What I have presented here is a combination of those instructions, their notes and my own experiments and instructions.

For further reading and research on shoes and boots in our period, I suggest the following web-site as a starting place: <http://www.personal.utulsa.edu/~marc-carlson/shoe/SHOEHOME.HTM>

This is Marc Carlson's page on medieval shoes. Be sure to check out Mr. Carlson's HUGE bibliography!

If you have any questions, feel free to contact me at my e-mail address or talk to me at an event. Good luck!

~Tatjana