

## How To Make A "Captain Jack Sparrow" Hat

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### "Pirate Still Life"

*Sword by Arms & Armor, pistol by Denix, pieces of eight and guineas from Jas. Townsend & Sons, mug from Hampton Court Palace gift shop, map by my son (Nathaniel), and hat **BY YOU** - eventually!*

**Approximate Cost:** \$70-\$80, but with enough leftover materials to do a second hat.

**Approximate Time:** A week working off and on, or a weekend if you hustle.

## Suggested Supplies:

- A pair of small pliers
- Half a dozen regular leatherworking needles (blunt points, big eyelets)
- An awl for poking stitching holes
- Small reel of waxed polyester thread for sewing leather
- Some common white glue, or a bottle of "Leather Weld" if using kids' glue seems a bit silly to you
- A variety of pans and trays for dipping leather into hot water with, or a large sink
- Three binder clips big enough to pinch about quarter of an inch of material (or six if you want to be safe)
- A half-side of **four-ounce vegetable-tanned tooling leather** (the chromium-tanned stuff WILL NOT WORK)
- A bowl about the same size as your head (or slightly larger)
- A bottle (a quart, I'd suggest) of Tandy Pro Dye in whatever color you like
- A 1-inch paint brush (or smaller - buy cheap from a hardware store, not an artists' supply shop - the dye will wreck the brush, so it should be seen as a disposable delivery system only)
- Narrow-pointed waterproof felt-tip marker (think 'Sharpie')
- Tape measure (the type that tailors use rather than a steel tape)
- Rubber gloves (optional)
- A craft knife - the sort with snap-off blades
- Shoe polish and brushes

## **First, a word about materials.**

When buying your leather, you must get vegetable-tanned tooling leather. If you're not familiar with leather the first thing you may think is that it looks wrong - it is just raw leather with a smooth face and a suede face. It's precisely the stuff you need, so don't second-guess yourself and buy soft, chrome-tanned leather by mistake. It looks more the way you think Captain Jack's hat looks, but so will the tooling leather when we're done.

Four-ounce leather is about an eighth of an inch thick and it's stiff, but it's very workable when it's been soaked in hot water - and it hardens in the shape you bend it. It is also stretchable, and can be deformed in two dimensions to make a dish-shape. That's the reason we're going to use it. You can use heavier stuff if you like, but it's less workable as you go up the thickness scale.

The pliers are for pulling needles and thread through the holes you poke with the awl. If you poke big holes, the needles go through easier, but the remaining holes are unsightly. The waxed thread is much better than unwaxed, incidentally. Standard white school-glue is perfectly adequate for bonding leather, but there are other products that are stronger. Give them a try if you like, but if you can't find any, no worries - the parts we'll be gluing don't take that much stress - it's not like we're gluing soles on shoes.

The pans and trays are just for convenience. If you need to, just use a sink. When you soak the leather in hot water the water gradually turns reddish-brown afterwards. This is mostly just tannin and the other things they tan leather with these days. It is not harmful, but it might leave some stains like tea and coffee can in a cup.

The gloves are for working with the dye. You don't have to use them if you're a careful-sort-of-person, but it is advisable. Remember - leather is skin, so the leather dye is specifically designed to penetrate and stain you as easily as your leather. It takes about a week to get the stuff off if you spill it (I got a bottle splashed in my face one time - talk about embarrassing), unless you're able to use Mineral Spirits to clean it off (get the low-odor type if you buy any).

The brush is for brushing on the dye: we don't immerse the leather in it. The amount of dye needed is about five times as much for the suede side as for the smooth face of the leather, so you will probably need more than the small 4-oz. bottles that Tandy sells, that's why I recommend the quart. Besides, you'll probably want to try your hand at some belts and things with your newly acquired materials.

If you can find two bowls that are the same size as your head, and nest perfectly, then that would be even better than a single, but one is all you really need. Metal is much better than plastic, though.

## **Buying stuff.**

The best place to get leatherworking supplies is a leatherwork store, like Tandy Leather. They also have a website ([www.tandyleather.com](http://www.tandyleather.com)) and an excellent selection to choose from. You can buy everything you need (except the bowl) there.

The price of leather is stated per square foot and the size of the piece you get is pretty much random, but a half-side is about 14 or 15 square feet on average: enough for maybe two hats if you're lucky. It is possible to find holes in the leather or marks on it, but this is just an unavoidable result of working with natural materials. You'll also notice that the material has a 'grain' to it. It's important to pay attention to that when working and selecting where to cut.

Tandy usually delivers fairly promptly, but there can be delays if something is out of stock. If you have a Tandy store near you, it's better to go there because you can also choose the piece of leather yourself. You should also note that some substances (rubber cement and dye) contain flammable chemicals, so they can sometimes cost more to ship depending on the quantity you are buying.

### Getting started.

Start by examining the grain of the leather (the wrinkles and different textures it has). Find a part you like and ensure that there's enough space to cut out a 2-foot diameter circle out of it (or bigger if you want a truly heroic hat). Measure around your head where you usually wear a hat and then **divide** that measurement by SIX. (Why six?  $C=2\pi r$ , therefore  $r=C\div 2\pi$  but if we round  $2\pi$  to 6 then  $r$  will be a bit bigger as a safety margin.) Draw a dotted circle of that radius on the smooth face of your leather using the black marker. The best way to do this is to take a piece of string and tie it around the end of your marker, near the tip. Put a dot where you want the center to be and then stretch out the string until it reaches the radius you want. Get someone to help you by holding the string in the center. If your hand slips, reposition the pen *then* pull the string taut and continue.

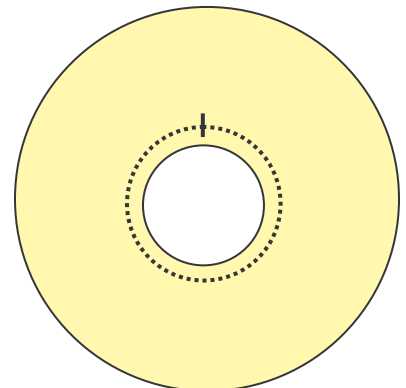
Whenever marking on your leather, remember to use a soft-pointed pen because while the color of the ink will be concealed by the color of your dye (if you chose dark enough dye - black covers anything) the impression made by the point of the pen will not. This is tooling leather, any marks will last: even thumbnail scratches. You also may wish to take off your watch. I've made that mistake, too. Of course, this property of the leather can also be to your advantage: if you draw designs (skulls, cross bones, doubloons, etc.) on your hat with a ballpoint pen, then they'll still be there later.

Draw a larger circle around the dotted one (same center) with a radius of about a foot, and then a smaller one about an inch *inside* the dotted one. This smaller circle will eventually be stretched out to the size of the dotted one to make a nice, comfy brow-band. If your circles look wobbly, don't be too worried - the head-shaped bowl will correct your brow-band and you'll be trimming some of your 2-foot circle down as you get closer to being finished.

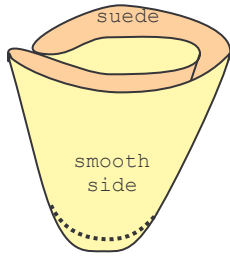
Cut out the two solid circles. Do the outer one first - it's easier to maneuver that way. When cutting the leather, you'll notice that your blade point doesn't go all the way through on your first cut. This can get annoying. Start the cut off at the edge of the leather (or make a few cuts to make sure you get all the way through first) and then *slice* through the leather, lifting it off the floor as you go. Go slowly, and be careful with your blade. It is possible to slip and gouge a chunk out of your hat, but it's worse to hit a thin spot and slice into your leg or something - that's why I always cut on the floor, keeping pets and kids away.

Look at the grain of your circle of leather. See if you can align it symmetrically, keeping the better portion toward you (if there is one). Mark the hat on the brow-band (dotted) line with a little dash at the part you want for the BACK. Mark the small circle in a similar way - it's going to be the top of your hat.

See diagram for finished blank.



## Shaping the band.

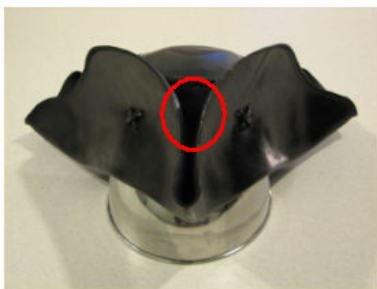
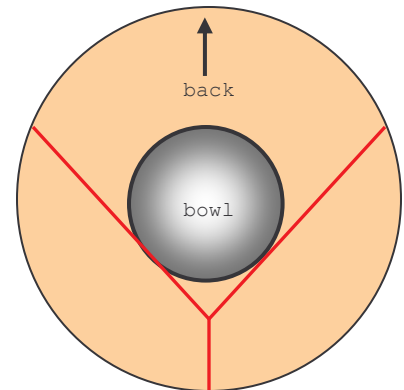


This is the fun part. You have a donut-shaped ring of leather. Get your head-shaped bowl ready (slightly bigger is better than slightly smaller) and a few square feet of elbow room near your range. Put on a pan of water (fairly full) until it's scalding hot - not quite boiling, but starting to bubble. Now, fold the donut in half, and then again into quarters, so that it makes a funnel-shape.

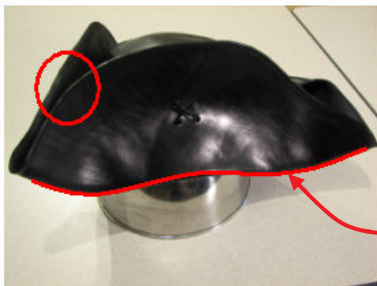
See diagram for funnel.

DON'T fold it hard! You just need to be able to stick the dotted line part into the pan for a short while. Switch off the burner then dip the bottom of your temporary cone into the water - you want the area around the dotted line wet. It might fizz and sizzle a bit, so don't be alarmed. Hold it in the water for about thirty seconds or thereabouts and then pull it out. If you go too long, the leather will harden more when it dries. It may also go brown and crusty - especially if you walk away and leave it. The leather should now be hot, wobbly, and stretchy. Gradually work it over the top of your upturned bowl by pushing down near the stretching band. You want to be doing this finished-side-down, so you should be pushing on the sueded side (notice the color-coding in the diagrams). You have LOTS of time to work with the leather, so take it easy and avoid tearing it.

When it's onto the bowl at the place where it approximates to your head measurement, get the three binder clips. First, align the back of the hat (where you marked it) at the twelve-o'clock position, then you grab the brim on each side at about the four-o'clock and eight-o'clock positions (you're standing at the six) and bend the flaps up. This will cause a crease at the six-o'clock position (see diagram for creases). Pinch that crease about two or three inches from the end and put a clip on it to hold those pieces together. By hand, shape the point where the peak meets the brow band to your liking. After that, bend up the flap at the back and pinch those corners, too.



Pinching is important: this is the key to getting the Captain Jack look! If you pinch the leather together it does two things - it makes the very distinctive loop of leather at the end of each point AND it raises the angle of the peak. But, be careful! The binder clips will mark the leather, so don't push them on too far - leave them fairly close to the edge to allow you to cut those bits off. Plus, you're not done with the pinching yet. We'll do a second pinch after you leave the hat to dry and harden, so don't be alarmed if it doesn't look cool yet - we're just doing the brow band. Leave it on the bowl for a few hours.



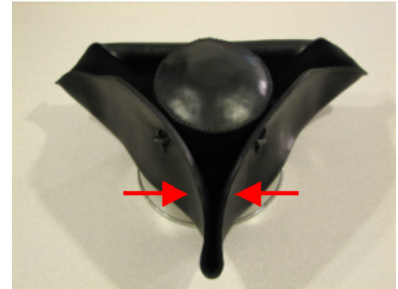
Place the binder clips where the **red circles** indicate. Do this at each corner symmetrically. Note that the photos are of the *finished* hat, so it won't look exactly like this yet.

Notice the curve of the brow band - it doesn't stay flat. That contributes to the rakish look. Encourage it! ☺

### The cockades.

The corners of the hat are called 'cockades'. By now, your brow band should look pretty good. It should stay up by itself when you take it off the bowl. We now need to fine-tune the cockades to really give the hat a cool shape. Dip each one in turn in a fresh pan of hot water (as before). Let it go into the water far enough that the whole cockade is immersed, but not so far as to get too much of the brow band in again. If you do get something wet that has already been shaped, just make sure it keeps its shape by working it like play-doh. A piece that's already been hardened shouldn't be as affected as an untreated piece, but it can still be irritating to have to keep fixing bits you were already happy with.

Bring the sides of the cockade together and re-clip them. The result should resemble Captain Jack's hat, by keeping the sweeping sides of the hat close to the head. The front cockade should be the most glorious and ostentatious, so feel free to go crazy. The two at the back are less tightly gathered, so go easier on them.



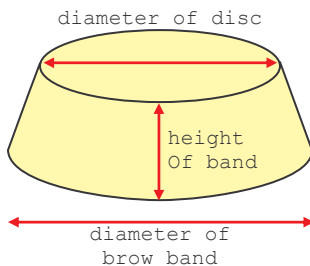
Don't be tempted to roll the back flap of the hat yet - it's much easier to wait until the crown is in place.

Tightly clipped and kneaded to a perfect shape (pinching in where the **red arrows** indicate on the front as an example), the cockades should be about done. We'll do the finishing touches later.

### Cutting out the crown.

This is the part where I have to, by dint of lack of skill, stray from the true Captain Jack style. The ideal thing to do would be to take a circle of leather and stretch it perfectly over the bowl you are using in lieu of your skull. It should be eminently possible for the leather to do this, but to manage it you would really need more than just a bowl. The technology escapes me, so here's my alternative solution.

You make a roughly bowl-shaped crown using the circle you cut out from the center of your donut as the bottom of the 'bowl'. The bowl is then stretched over your head-shaped-bowl and finally glued onto the brow-band you already have made. That's the theory, at least - I started with a cylinder so I couldn't stretch it far enough. I was left with a more cylindrical crown than a rounded one, but yours should look better than mine if you follow these guidelines.



For you math-heads out there - yes, I'm talking to both of you - you will want to know that we are about to make a "frustum" of a cone. That's a cone with the top missing. It's a lot easier to cram it onto the bowl than a cylinder is. Fortunately, while the mathematics of this shape are not very forgiving the leather is, so we only need get close to the correct dimensions to get a nice looking hat.

*See diagram for important measurements.*

To reiterate, because I've probably lost you by now with all my digressions, you have a circle of leather somewhere. It's the piece you cut out of the 2-foot

circle so you could stuff the 'donut' onto the head-shaped-bowl. Measure this piece. The distance across it is the diameter, so get its diameter. Then measure the diameter of the brow band. You should be able to take it off the bowl without it losing its shape by now, so that shouldn't be too bad. NOTE: leave the hat on the bowl when not working on it because the leather does still shrink as it dries.

What we do now relies on some math. If you'd like to email me and discuss my calculations, feel free, but I'm just going to give you a table of simplified solutions and let you wonder where they came from. The most important thing is coming up with a height for your crown. Put the skeleton hat on your head (yeah, I know you've tried it on already - who can resist?) and hold your disc of leather about an inch above your head. Twist around in front of a mirror and gauge the distance between the brow band and the disc. As a guess, I'd say it would be about 2 inches for a kids' hat, 3 inches for a normal adult hat, or 4 inches for a tall hat or one where the brow band was accidentally cut very low. Accuracy isn't vital at this point.

Now, with that number in mind (2, 3, or 4) consult one of the following tables and cross-reference the diameter of the brow band with the diameter of the disc. The number you will find at the intersection of that row and that column is the number you'll carry forward to the next step, so write it down.

Use this table for a 2-inch band..

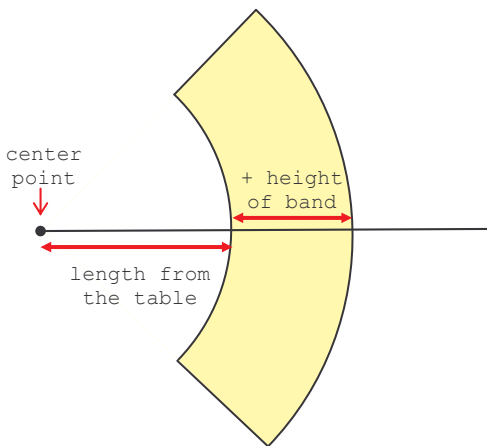
		diameter of disc												
		3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6
diameter of brow band	5	3	3 3/4	4 3/4	6	8	11 1/4	18	-	-	-	-	-	-
	5 1/4	2 3/4	3 1/4	4	5	6 1/2	8 1/2	12	19	-	-	-	-	-
	5 1/2	2 1/2	3	3 1/2	4 1/4	5 1/4	6 3/4	9	12 3/4	20	-	-	-	-
	5 3/4	2 1/4	2 1/2	3	3 3/4	4 1/2	5 3/4	7 1/4	9 1/2	13 1/4	21	-	-	-
	6	2	2 1/4	2 3/4	3 1/4	4	4 3/4	6	7 1/2	10	14	22	-	-
	6 1/4	1 3/4	2 1/4	2 1/2	3	3 1/2	4 1/4	5 1/4	6 1/4	8	10 1/2	14 3/4	23	-
	6 1/2	1 3/4	2	2 1/4	2 3/4	3 1/4	3 3/4	4 1/2	5 1/2	6 3/4	8 1/2	11	15 1/4	24
	6 3/4	1 1/2	1 3/4	2 1/4	2 1/2	3	3 1/2	4	4 3/4	5 3/4	7	8 3/4	11 1/2	16
	7	1 2/4	1 3/4	2	2 1/4	2 3/4	3	3 1/2	4 1/4	5	6	7 1/4	9 1/4	12
	7 1/4	1 1/2	1 3/4	1 3/4	2 1/4	2 1/2	2 3/4	3 1/4	3 3/4	4 1/2	5 1/4	6 1/4	7 3/4	9 1/2
	7 1/2	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3	3 1/2	4	4 3/4	5 1/2	6 1/2	8
	7 3/4	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3 1/4	3 3/4	4 1/4	5	5 3/4	6 3/4
	8	1 1/4	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	3	3 1/4	3 3/4	4 1/2	5	6

Use this table for a 3-inch band..

		diameter of disc												
		4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7
diameter of brow band	6	6	7 1/4	9	11 1/2	15	21	33	-	-	-	-	-	-
	6 1/4	5 1/4	6 1/2	7 3/4	9 1/2	12	15 3/4	22	34 1/2	-	-	-	-	-
	6 1/2	4 3/4	5 3/4	6 3/4	8 1/4	10	12 1/2	16 1/2	23	36	-	-	-	-
	6 3/4	4 1/4	5	6	7 1/4	8 1/2	10 1/2	13 1/4	17 1/4	24	37 1/2	-	-	-
	7	4	4 3/4	5 1/2	6 1/4	7 1/2	9	11	13 3/4	18	25	39	-	-
	7 1/4	3 3/4	4 1/4	5	5 3/4	6 3/4	8	9 1/2	11 1/2	14 1/2	18 3/4	26	40 1/2	-
	7 1/2	3 1/2	4	4 1/2	5 1/4	6	7	8 1/4	9 3/4	12	15	19 1/2	27	42
	7 3/4	3 1/4	3 3/4	4 1/4	4 3/4	5 1/2	6 1/4	7 1/4	8 3/4	10 1/4	12 1/2	15 1/2	20 1/4	28
	8	3	3 1/2	3 3/4	4 1/2	5	5 3/4	6 1/2	7 3/4	9	10 3/4	13	16 1/4	21
	8 1/4	2 3/4	3 1/4	3 1/2	4	4 1/2	5 1/4	6	7	8	9 1/2	11 1/4	13 1/2	16 3/4
	8 1/2	2 3/4	3	3 1/2	3 3/4	4 1/4	4 3/4	5 1/2	6 1/4	7 1/4	8 1/4	9 3/4	11 1/2	14
	8 3/4	2 1/2	2 3/4	3 1/4	3 1/2	4	4 1/2	5	5 3/4	6 1/2	7 1/2	8 3/4	10 1/4	12
	9	2 1/2	2 3/4	3	3 1/4	3 3/4	4 1/4	4 3/4	5 1/4	6	6 3/4	7 3/4	9	10 1/2

Use this table for a 4-inch band..

		diameter of disc												
		4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2	5 3/4	6	6 1/4	6 1/2	6 3/4	7
diameter of brow band	6	8	9 3/4	12	15 1/4	20	28	44	-	-	-	-	-	-
	6 1/4	7	8 1/2	10 1/4	12 3/4	16	21	29 1/4	46	-	-	-	-	-
	6 1/2	6 1/2	7 1/2	9	10 3/4	13 1/4	16 3/4	22	30 3/4	48	-	-	-	-
	6 3/4	5 3/4	6 3/4	8	9 1/2	11 1/2	14	17 1/2	23	32	50	-	-	-
	7	5 1/4	6 1/4	7 1/4	8 1/2	10	12	14 3/4	18 1/2	24	33 1/4	52	-	-
	7 1/4	5	5 3/4	6 1/2	7 1/2	9	10 1/2	12 1/2	15 1/4	19 1/4	25	34 3/4	54	-
	7 1/2	4 1/2	5 1/4	6	7	8	9 1/4	11	13 1/4	16	20	26	36	56
	7 3/4	4 1/4	4 3/4	5 1/2	6 1/4	7 1/4	8 1/2	9 3/4	11 1/2	13 3/4	16 3/4	20 3/4	27	37 1/4
	8	4	4 1/2	5 1/4	5 3/4	6 3/4	7 3/4	8 3/4	10 1/4	12	14 1/4	17 1/4	21 1/2	28
	8 1/4	3 3/4	4 1/4	4 3/4	5 1/2	6 1/4	7	8	9 1/4	10 3/4	12 1/2	14 3/4	18	22 1/2
	8 1/2	3 1/2	4	4 1/2	5	5 3/4	6 1/2	7 1/4	8 1/4	9 1/2	11	13	15 1/2	18 3/4
	8 3/4	3 1/4	3 3/4	4 1/4	4 3/4	5 1/4	6	6 3/4	7 3/4	8 3/4	10	11 1/2	13 1/2	16
	9	3 1/4	3 1/2	4	4 1/2	5	5 1/2	6 1/4	7	8	9	10 1/2	12	14



Get a large piece of cardboard or newspaper. You're going to cut a piece out of paper or card first, *then* out of leather. The diagram to the left is the kind of shape you're going to make.

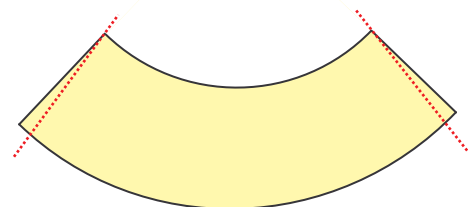
- 1) Draw a straight line from a clearly marked point.
- 2) Using your string-and-marker draw a big arc with radius equal to the number you got **from the table**.
- 3) Draw a second big arc with a radius equal to the length from the table + the height of the band.
- 4) Take the disc and put a dot on it at the edge.
- 5) Mark a point near the end of the innermost arc.
- 6) Align the dot on the disc with the point on the arc.
- 7) Roll the disc along the arc through one full turn.
- 8) Mark where the dot ends up.

Now you have that arc made, you can finish the shape with a long ruler. Line the ruler up with the center point and the end points you marked on the arc and draw lines out to the other arc. Cut the finished shape out of paper and roll it up. Line up the last two lines you drew and put a bit of tape on them to hold them in a frustum shape. Check that the two circles match (A) the size of the disc and (B) the size of the brow band. If they are off a little then adjust the piece of paper accordingly. It is OK to be a fraction off - bigger is better than smaller for the fit to the disc. The disc will be stitched on before any stretching, so the leather can be trimmed in place.

Once you're satisfied with the pattern you've made out of paper, cut it at the join and lay it out on your leather, minimizing waste material. Mark the shape onto the leather with your pen and then take the paper off for cutting.

Cut the piece out and check it *again* for fit. You want to be sure of a good fit for the stitching.

If the fit with the brow band is a touch small, then that's not a problem. If it's a bit large, then trim the matching ends of the band symmetrically - like the dotted lines show... Be careful not to take off too much.





## The stitching.

You're not going to like this bit. Nobody really enjoys stitching leather, so don't feel bad. All you have to do is make the pieces stay together. There is an easy way and a hard way. In my experience with leather stitching, the hard way is better in the long run because it looks nicer. In a practical sense though the easy way is definitely good enough.

Here's a picture to inform (and maybe inspire) you.



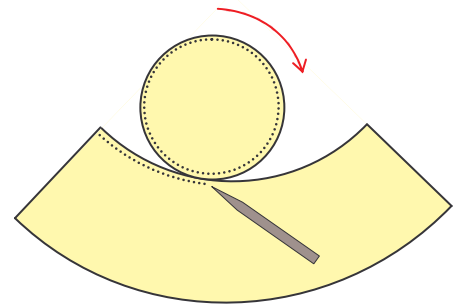
This hat was based on a cylinder, not a cone, so it has a very square look from the side. That suits me, but possibly not you. It also serves to display the stitching. Observe...

See how the stitches make an XXXXXX pattern on the outside (**red box**)? On the inside they form a ||||| pattern instead. You can reverse this to put the Xs on the inside and the |s on the outside, if you like. You can decide how you want it later. First we have to poke some holes.

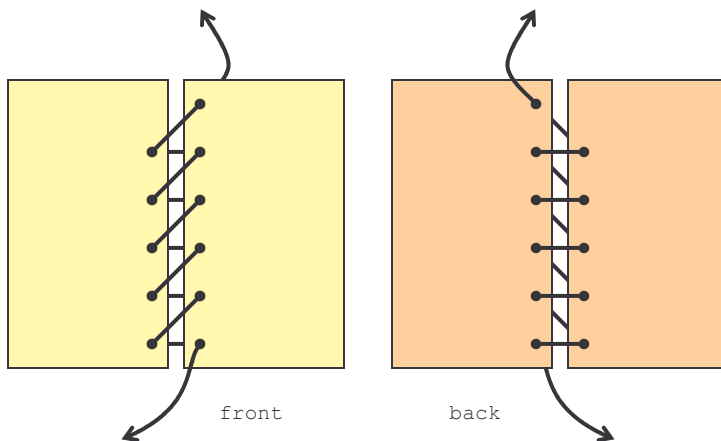
Start with the disc and use your awl to poke holes through the leather about 1/8 inch from the edge and 1/4 to 1/8 inch apart, as suits your taste. Try to keep them uniform. If you've not stitched leather before, you may wish to go for the 1/4 inch spacing. Begin poking holes from the back of the disc (the dot you marked earlier).

NOTE: you may notice that my hat top is oval in shape. I did that because I knew I wanted it that way. Yours will be round, so designations like *front* and *back* will not be terribly relevant.

Roll the disc along the inner arc of the curved band and use the pen to mark where you're going to poke the holes (see diagram). There has to be exactly the same number of holes in both the disc and band for it to look right. If you're off by a hole, adjust your marks before you poke. Now poke away!



Do the same down the straight edges of the band - same number of holes on each piece.

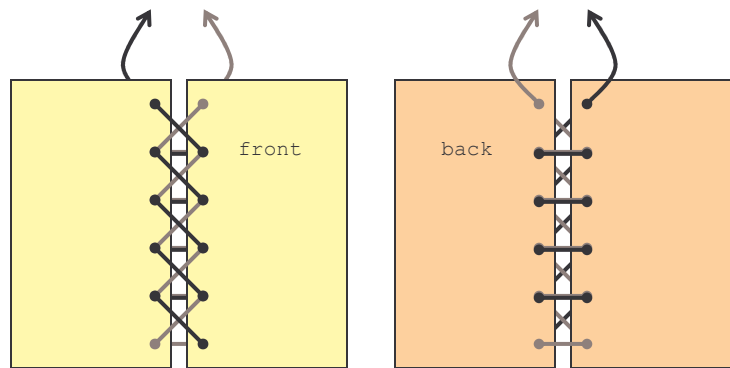


This is the basic stitch. If you want to reverse it, that's up to you. I prefer to use the two-needle method. Thread a needle on each end of a long piece of waxed thread. Start by pulling the thread through half way, then stitch with one needle pulling the stitches snug (but not really tight) as you go. Once you've reached all the way around, pull the needle off and turn to the other one, stitching the opposite direction with that and pulling tight this time.

See the diagram on the next page.

The existing stitches are shown in gray. The new ones are black. The pieces are shown with a gap between them just to help you visualize them. When doing the stitches, you shouldn't be leaving a gap.

See how the 'front' side has the X pattern and the back has the || pattern? I do it this way because we're stitching the two pieces of leather at right angles and it helps cinch the edges together.

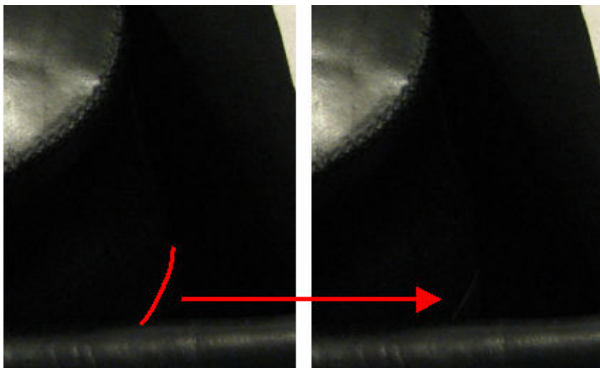


When you have finished all the stitching tie the loose ends off with two reef knots. To do a reef knot you cross them left-over-right, then right-over-left. This is a much stronger knot than a 'granny knot' which is two consecutive left-over-rights. Get into the habit of alternating directions like that when knotting. Any self-respecting pirate would know that.

Also, leave two long tails on your knots - you can trim them later, but don't do it before the piece has been immersed and stretched. The thread is waxed, which adds to friction and helps plug the stitching holes when dry, but when you put it in hot water much of the wax melts and becomes slippery, so loose knots can come untied. Having only tiny ends to re-tie them with would be very annoying because then you'd have to **re-stitch** those ends if the threads pulled through.

### Stretching the crown.

Put on a pan of water and get it nearly to the boil. Prepare the head-shaped-bowl by dribbling a little oil on it. I prefer olive oil, but you could also use mineral oils, etc. It just helps to ease the crown on. Drop the crown in top-up. It isn't airtight so it should gradually sink into the water. This extends the exposure for the parts that have to stretch most and spares the stitching excessive heat. Be careful as you remove it not to stretch the sides by hand - let the bowl do it. Massage the hat onto the bowl, pulling it where needed, compressing it in places that stick out (yes, that works, too - hot leather is very plastic).



Leave it to dry and harden when you're satisfied with the shape. Slip the brim onto the bowl as well, over the crown. If it sits on the crown, push it on hard to make a good, tight fit. If it slips off the crown, then ease it back up so the edges of the crown touch the edge of the brow band. An end-to-end fit is ideal. We're going to put a band inside it anyway.

The **red line** shows the end-to-end join on my hat. I cover this later with a band of silk.

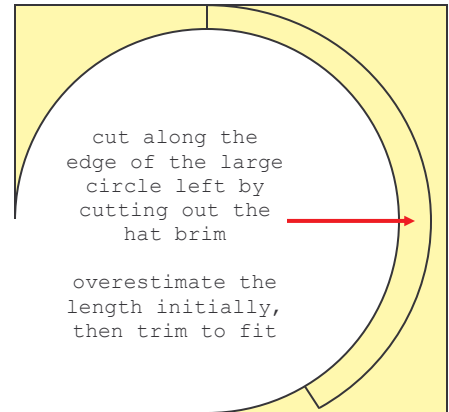
It is possible to work with an overlapping joint, but it's better to wait until the pieces have dried and then cut them to fit end-to end.

To fasten this kind of butted joint, we have to splint it with another piece of leather. This will make the hat a slightly snugger fit than it was before, so hopefully there was some room to begin with (read my earlier admonition that bigger is better).

### Attaching the crown to the brim.

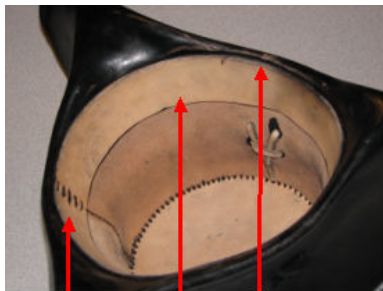
This piece finishes out very nicely, and looks like a professional hatmaker's product. We rely on the stretchiness of the leather to forgive our inaccuracies, here. We could calculate this one like the shape we did most meticulously for the crown, but seeing as how this is an internal piece we can just 'eyeball' it. The shape of the strip of leather we're going to cut is the same as the side of the frustum - a curved strip with squared-off ends. It only needs to be an inch wide or so, though.

I would suggest that you cut the strip along the curved edge of the scrap piece left from cutting out the 2'-diameter circle of the original brim. *Example shown.*



Position and trim the band so that it overlaps both the brow band and the crown by about half an inch each (err on the side of being too small rather than too large). Stitch it together at the ends, but remember that the smooth side will be inward and the ||| stitches are more comfortable against the skin. Stitch it with the ||s on the smooth side and the Xs on the suede side. Tie it on the suede side.

Now soak the band in hot water. Place it on the bowl and stretch it down to the right position. Check positioning carefully. When you are satisfied, drench the band in glue (this bit can be messy, so put down some newspaper) and squish the brim onto it. A tight fit is desirable.



Then push the crown onto the gluey band and weigh it down with a book, or something - you can push the top back out later. Leave the ensemble for a day to dry and harden. The glue is flexible, so you can adjust the brim of the hat to fit more comfortably later.

A note about glue: the glue absorbs into the leather. The dye we are going to apply does so too. If the glue gets onto a part of the hat that you want to see finished, then wipe it off thoroughly otherwise the dye won't sink in as well. If you actually want the weathered look then you might be able to use the glue to achieve that.

### Rolling the back flap.



I used a cookie tray for the hot water for this part. Fill it with nearly-boiling water (it cools quickly) and slide the back flap entirely into the water. Let it steep for about 10-20 seconds then take it out. Sit the hat back on the bowl (especially if you got some of the brow band wet at the back) and roll the flap down. It doesn't need to be clamped, it will hold nicely by itself. If you get it tight against the back of the crown then that will stop it from 'clattering' when you plop the hat down.

### Shaping and finishing the brim.



Take a knife and trim the hat to the shape you want. I suggest marking it out with pen first. You'll see that my hat has sides that rise about an inch above the crown. I did that to make it look more imposing. Captain Jack's doesn't rise that far. Nor are his aft cockades so long.

You will want to cut off any parts that were marred by clips and so forth. There should be plenty of material to allow this. I found that in the last scene of the PoTC movie were where one found some of the best views of his hat - right before the, "*Drink up me hearties, yo ho!*"

Notice the scalloped back cockades? The **red dotted line** shows the original line of the brim. Also see how I rolled the edges over a little? It gives it a more finished look and gives an impression of greater thickness to the leather.

I also dipped the ends of the flaps in hot water to the extent of half an inch and rolled the edges out a bit. That allowed me to get the inverted 'keyhole' shape in the **red oval**.

### The two lace X's on the flaps.

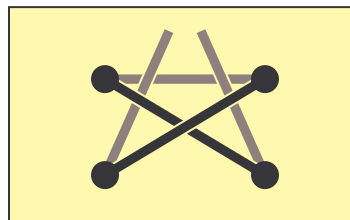


See how the X pulls the center of the brim snug to the crown (the **red arrows** show the curve of the surface)? If you like that look (and the fact that fastening it this way really stiffens the brim) then you need to punch four holes in a square through the brim and into the crown.

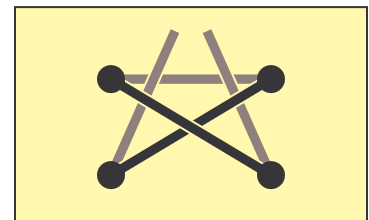
I found it easier to drill them using a 1/4-inch bit. Be careful not to drill yourself! You have to hold the pieces together so you do have to get your fingers in there. Make sure they come back out - you'll need them.

Once the holes are there, cut strips of leather about 8 inches long and 1/4 inch wide. Taper the ends for easy threading. I found that they stay in place nicely with just friction, are easy to remove, and simple to re-tie.

This is the knot I used. The gray section is inside the crown.



right side of hat



left side of hat

### Dyeing the hat.

Pour some dye into a wide-mouthed, disposable container. It's best to have something that isn't going to tip over (or get blown into your face on a windy day). It is also advisable to have some cardboard to work on because the brush sprays little droplets all over the place. It is a very good idea to have a well-ventilated area to work in, but not a windy area.

Put on gloves, unless you want to take the chance of dyeing your hands. Paint the dye on. Work quickly - the dye goes further that way (it's very volatile stuff). On the suede surfaces you'll need to use a lot of dye. Work it in! Don't dye the inside, though - it rubs off for months to come, so it's not worth the bother.

### **Waxing the hat.**

When the hat is dry (wait half an hour or so) use boot polish in lavish quantities and wax both the suede and finished surfaces that you dyed. You'll see it darken and take on a richer black color. It's good to use one brush to apply the polish and (10 minutes later) another to buff it to a nice sheen.

You will want to take off the X-shaped fasteners so you can get into all the crevasses. You probably took them off for dyeing, anyway. Don't forget to polish those, too, before you put them back in.

### **Finishing touches.**

A hatband is a nice touch. If you can cover the part where smooth-meets-suede at the base of the crown, then it will de-emphasize that transition. I used a strip of crunched-up red silk, which was well held in place when I put in the Xs again. Another idea would be a silk lining, but seeing as how that's the purpose of the Captain Jack headband it would seem superfluous.

Other ideas could include ostrich feathers, for that Will Turner cavalier-look, or for a truly weathered appearance you could beat it at arm's length against a rough brick wall and then re-dye or re-polish the scars you inflict upon it. My recommendation would be to let it acquire such a 'patina of age' at the appropriate pace and enjoy it now while it's all shiny and new.

Oh, and don't forget to sign it - it is, after all, an original.