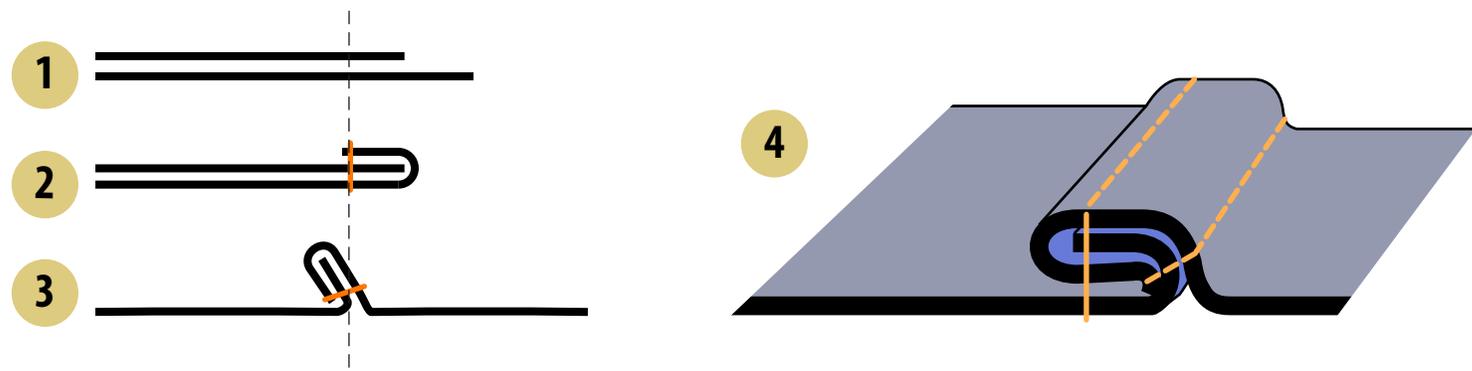


FLAT FELLED SEAMS
... AND OTHER SELF FINISHED
SEAMS FOR SHIRTS

FLAT FELLED AND LOOK-ALIKE SEAMS



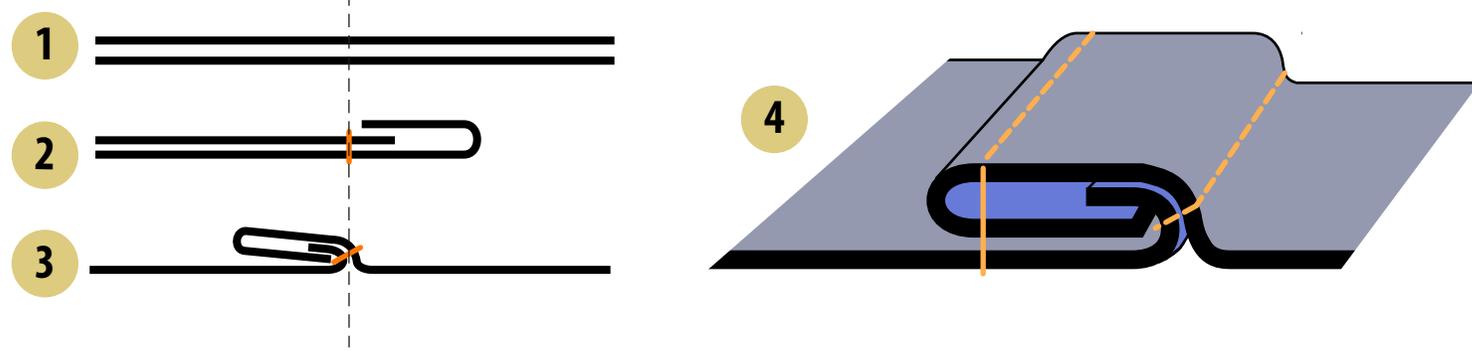
MACHINE-TURNED FLAT FELLING

If using a felling presser foot to form the seam, (1) start right sides together with seam allowances trimmed—or originally cut out—unevenly, one to match the foot’s width, placed on top, and the other twice that. (2) The first pass through the foot wraps the wider allowance over the narrower and secures all layers. (3) Press the seam open from the right side, then press the allowances over the seam line. (4) The second pass closes the seam the foot’s width away.

As shown below, only the second-pass stitches are visible on the right side, but you can reverse the layers if you want two rows of stitching on the outside, perhaps to simulate the look of industrial double stitching, shown at bottom left. Seams done as described

here are sometimes referred to as “Single-Needle Tailoring” precisely to distinguish them from double-needle work, typically associated with heavy-duty construction and sports- or work-wear.

Presser feet for wide ($\frac{3}{8}$ " or 8mm) and narrow ($\frac{1}{8}$ " or 4mm) felled seams are widely available (shown on the next page), but the wider ones can distort the wider allowances they require, especially on thin fabrics, which are easy enough to handle by hand as described next. The narrower seams are practically impossible to manage neatly without the help of a foot, in my experience.



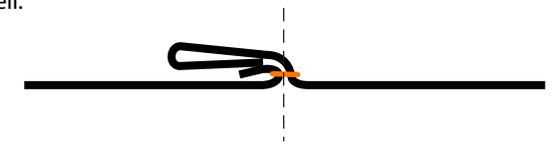
HAND-TURNED FLAT FELLING

If not using a felling foot, the seam allowances are usually not trimmed before stitching, and the finished seam width is dependent on the width of the original seam allowances. Various sequences are possible, the one shown being typical:

(1) Stitch the seam right sides together with your preferred seam allowance. (2) Trim the upper allowance close to the stitching, at least slightly less than half the starting width, then press the wider lower layer over it, aligning the raw edge with the seam line. (3) Press the seam open from the right side, then press both allowances over the

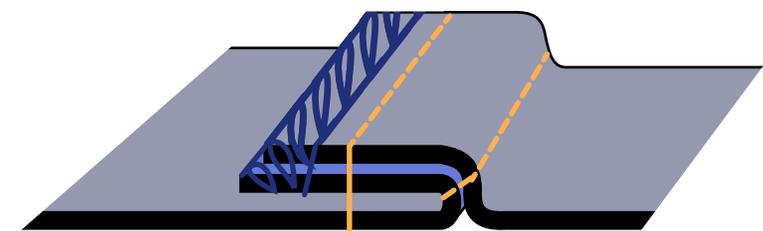
seam line. (4) Close the seam by stitching parallel to both the original seam line and the pressed-under edge.

It makes no difference to the strength of the seam if the folded-under layer wraps around the trimmed layer, or sits on top of it, so if you'd prefer to press the seam open in Step 1 before trimming, and then press the folded allowance over the trimmed one, that will work equally well.



FAUX FELLING (SERGED WELT)

If the raw edges of the seam allowances will be serged together—either after forming the seam or at the same time, as with a 5-thread serger that can create a chain-stitched seam line while overlocking the edge—or in some other way finished (perhaps with an overlocking stitch from a zig-zag capable machine), there's no need to fold them under or to trim the hidden edge before stitching through all layers parallel to the original seam. The allowances can be pressed to either side of the seam.

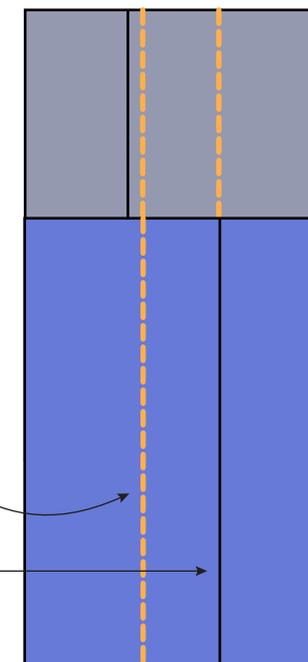


ARRANGING STITCHED ROWS WHEN FLAT FELLING

Start with **right sides together** to wind up with one visible row of stitches on the garment right side.

The visible stitches will be on the side with the narrower allowance.

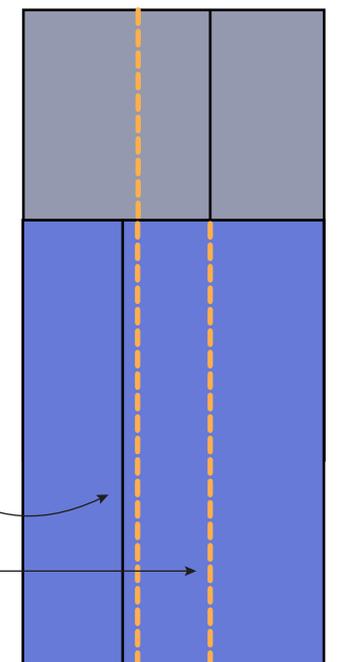
Seam line



Start with **wrong sides together** to wind up with two visible rows of stitches on the garment right side.

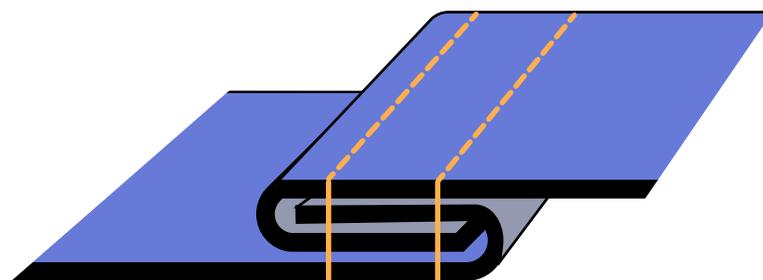
The raised, folded edge will be on the side with the narrower allowance.

Seam line



TWIN STITCHED (INDUSTRIAL ONLY)

A very common finish on manufactured shirts, this is created with a specialized and dedicated device called a Double Needle Feed-off-the-arm Chainstitch Sewing Machine. The machine wraps the layers together and stitches them twice (or with three rows if preferred), all in a single pass. Note that both seam lines in this case are chain-stitched (the “chain” is on the wrong side), not lock-stitched as in all the above, and both lines are visible on either side.



FLAT FELLING FEET — A PRIMER

There are two features that distinguish flat-felling presser feet. The first is the width of the foot, which is both the width between the “toes” at the opening in front (A—lines), and the width of the slot on the bottom, or “sole” of the foot (B). The second is the width of the opening where the needle goes through the foot (A—circles).

These are directly related to the two basic functions the feet perform, which are, **first**, to fold over once a raw fabric edge of a specific width as it moves into the foot, and **second**, to stitch a precise distance away from the guiding inner edge of the foot’s right-side toe.

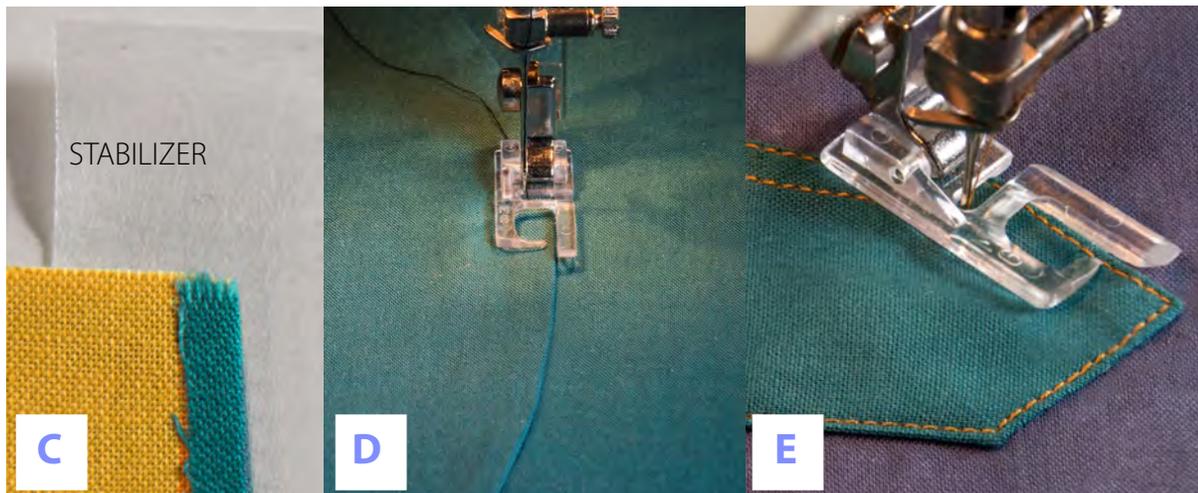
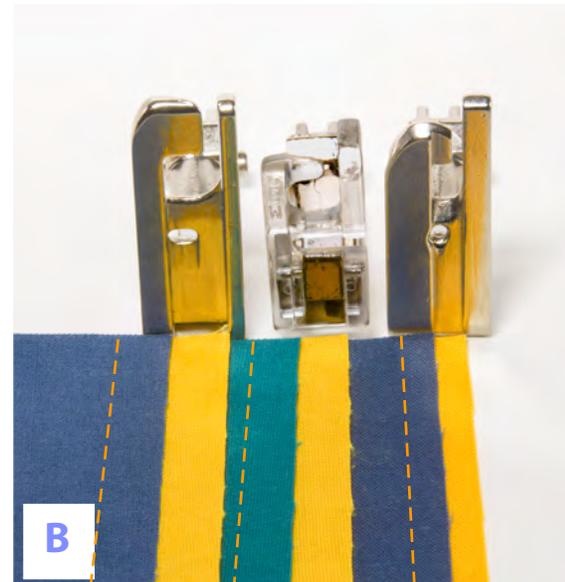
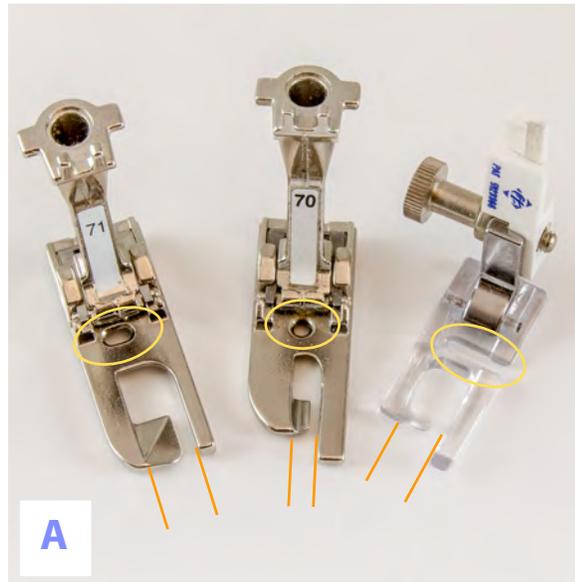
Used together, these functions are perfect for managing the steps of machine-felling a seam, shown at upper left on the previous page. The stitch-distance function can also be used on its own, and the wider the needle opening, the more adjustable the distance can be.

For felling, the width of the bottom slot determines the widths of the seam allowances expected by the foot, which should be pre-cut before the fabric layers are arranged. At B, note that the slot widths

equal the amounts by which the wider, lower allowances extend beyond the upper layers. That width also equals the width of the upper allowance (dashed lines), so the wider allowances should be 2 times the width of the narrower ones.

At C, note that I typically start a foot-felled seam by pre-folding and pressing the wider edge over the narrower one before bringing the layers to the machine. I also sometimes add a small scrap of fusible tear-away stabilizer extending beyond the seam to ensure a smooth start at the very beginning of the fabric hitting the foot. I stop needle-down to lift the not-yet-folded edge into the foot, over the bar that extends from the left toe towards the right toe, when I get beyond the stabilizer and the pre-pressed edge.

D and E show the foot being used simply as an edge-stitching guide, and taking advantage of the wide needle slot to allow needle position to set the stitch to edge distance. Note at D that a felled seam’s second-step stitching can be done from the right side, too, if the hidden edge has already been folded under manually, as shown at right, in image 1’s detail close-up.



FLAT FELLING A TUBE

With or without a specialized presser foot, machine felling is always a two step process, the initial seam closing (1) with both layers together, and the “felling” step that locks down the folded edge of the wider allowance to the single layer, the one with the trimmed allowance.

The second step is easy at the side seams where the layers can be separated. But when you’re closing a sleeve underarm, there’s only one layer involved, which the first step converts to a tube (2).

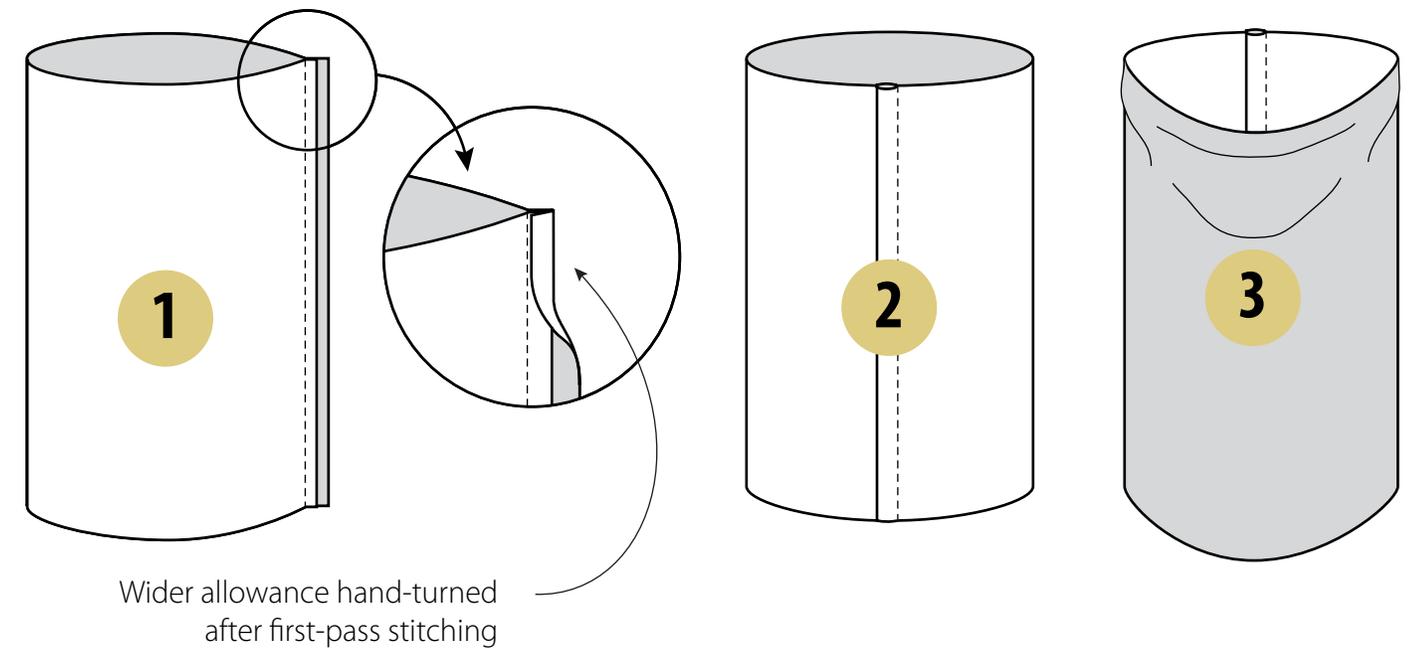
To complete the second step, you have to manipulate the tube so it goes under the foot so you only catch a single layer.

The easiest way I’ve found to do this is to turn the tube so the folded-under edge to be caught is on the inside (3), then to

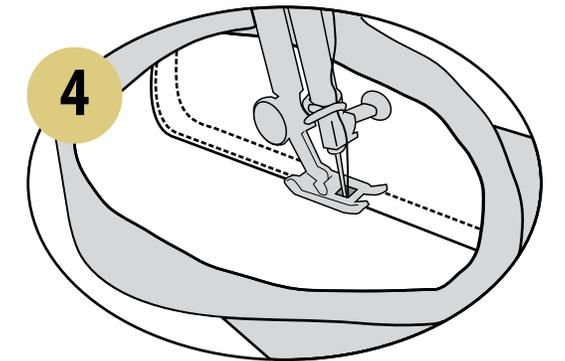
arrange the tube so that as you stitch down into and through it, you can gather the rest of the tube up around the presser foot and safely out of the way (4) until you’re all the way through.

This is easier than it sounds, as all you have to do as the tube feeds under the foot, is to make sure that just the inch or so of un-finished edge stitching, and the layer it’s being sewn to, is flat and feeding smoothly under the foot, after and before which you’re just keeping the tube out of the way.

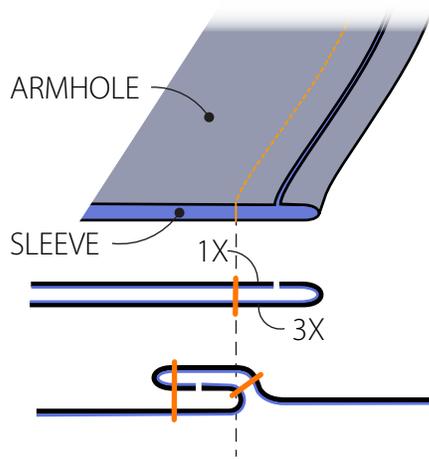
The narrower the tube, the more challenging, of course, but I’ve managed tubes that are far narrower than any sleeve I’ve ever needed to make. And a sleeve-placket opening at the cuff where the sleeve tube is narrowest certainly helps!



Wider allowance hand-turned after first-pass stitching



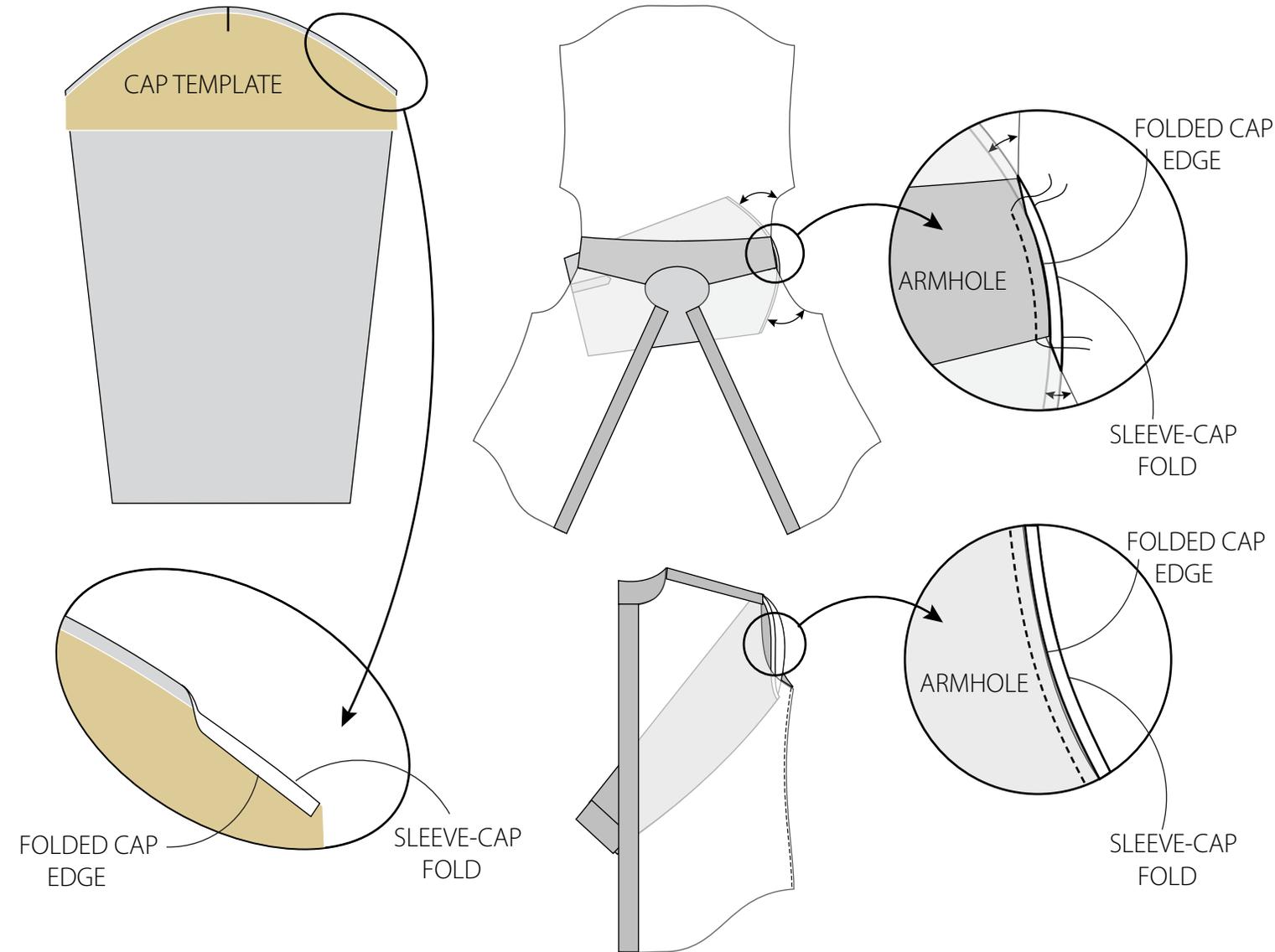
FLAT FELLING ARMHOLE SEAMS



A flat-felled armhole/sleeve seam is usually **hand-formed** because it's wanted a bit wider (and thus softer) than side and underarm seams, as well as being more challenging to arrange than the side or underarm seams, since it involves shifting together two quite different curved edges as you stitch.

To simplify the accuracy of the first-pass stitching and to ensure that the second-pass stitching safely catches the folded-under edge of the sleeve layer, it's a common practice to precisely pre-fold and press the sleeve-cap edge before doing any stitching.

Doing this accurately is critical to it being worth doing at all, so I usually cut a stiff card-stock pressing template from the sleeve-cap pattern so I can quickly achieve both a uniform folded width and a smooth curve, as shown below left.



The raw edge of the folded cap allowance width can then be used as guide for both the placement of the armhole curve's seam allowance edge and for the first-pass stitches as shown below.

An easy way to manage this is to initially cut the cap allowance 3 times the width of the armhole seam allowance. One way I typically cut an armhole is at $\frac{1}{4}''/0.6\text{cm}$, so that means a cap allowance of $\frac{3}{4}''/1.8\text{cm}$.

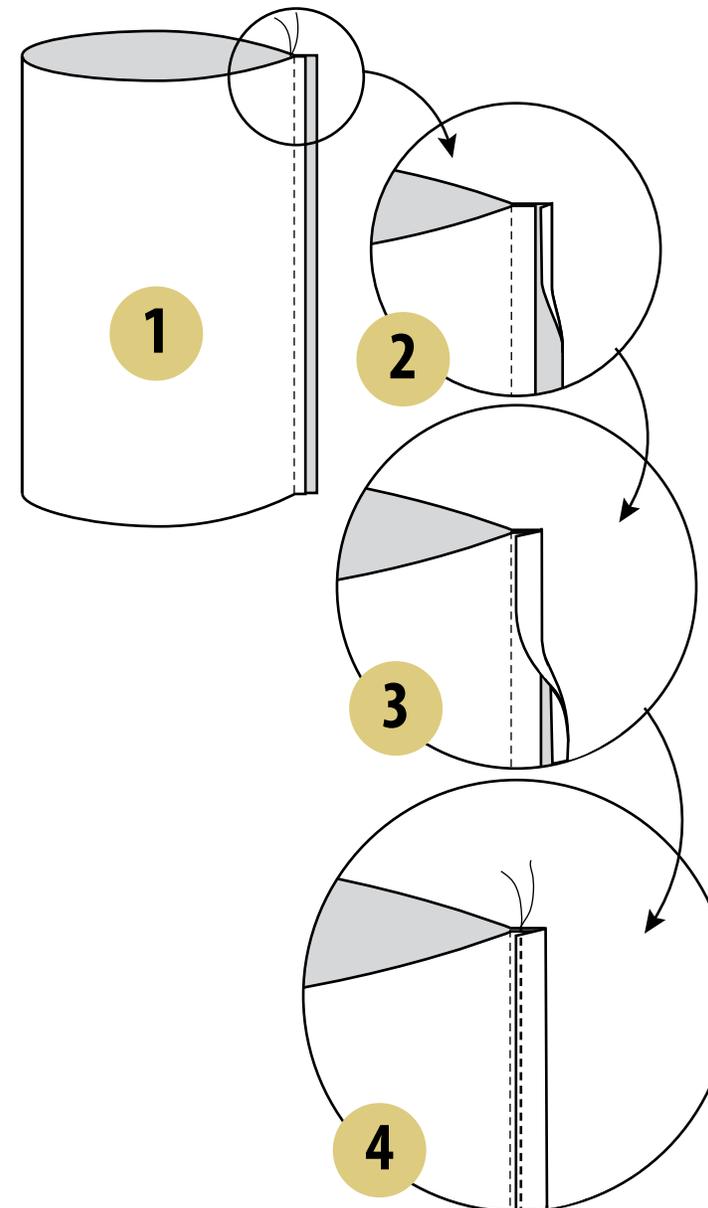
If I then align the armhole raw edge exactly with the folded cap edge, right sides together, as shown in the cut-away diagram at left, and stitch through all layers $\frac{1}{4}''/0.6\text{cm}$ away from the armhole edge, I'll create a consistent $\frac{1}{2}''/1.2\text{cm}$ folded seam allowance width, easily caught by stitching the second pass at $\frac{3}{8}''/1\text{cm}$ from the first pass seam line.

MORE SELF-FINISHED SEAMS

Here's two more alternative ways to self-finish a seam, ideal for the underarm seams if you don't want to mess with working inside the tube, no matter what you'll use on the side seams.

SELF-BOUND SEAM

1. Start with right sides together and with one seam allowance trimmed to half the width of the other; stitch as shown.
2. Fold under a narrow edge of the wider seam allowance along the entire length.
3. Again fold the wider allowance so the Step-2 fold is aligned and close to the Step-1, first-pass seam.
4. Stitch through all seam allowance layers to secure them to themselves, but not through the garment layers.



FRENCH SEAM

1. Start with wrong sides together and stitch a seam at half the width of your cut seam allowances. Press the allowances open.
2. Trim the allowances to about half width as shown.
3. Turn the tube right side out and press the seam flat. Stitch again at half the cut allowance width.

You'll probably never notice, but both these methods may result in somewhat less flexible seams than flat felling, so best to test with your fabric.

