Alcega's Farthingale (f.67)

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In period we often see mention to two styles of farthingales that were worn, the Spanish and French. There is also several different ways to make each style. In this paper we are going to take an in depth look at the Farthingale pattern that comes from Juan de Alcega's "Tailor's Pattern Book 1589". This Farthingale produces a cone shape hoop skirt, which was first common in Spain and then elsewhere in Europe during the 16th century.

In the Tailor's Pattern Book, an English translation is provided for us. "To cut this farthingale of silk, fold the fabric in half lengthwise. Cut the front on the left and the Back next to it, both from double thickness. Then unfold the remain silk, fold it in half crosswise and cut the godets (cuchillos) head to tail. Note that the front godets are to be joined straight edge with straight edge, whereas the back godets are to be joined bias edge with straight edge. Hence, there will be no bias edge on the sides of the farthingale, nor will it protrude on any side. The Front of this farthingale is wider then the Back [not clear from the measurements given] and from the remaining silk you can make a hem (ruedo). The farthingale is 1 1/2 ells long and a little more than 13 hand-spans (palmos) wide, which seems to me to be sufficient for this farthingale, but if you wish to make it wider, this can be done from this pattern."

We are also given some measurements on the pattern besides the text to work with. These measurements are given in Ells, which were the standard measurement used by Alcega and others in his region of Spain. We do know that from his forward in the pattern book, that an ell is 33 inches. All that follows here is based on that and also the fact that Alcega tells us that the patterns are laid out proportionally, meaning that they can be resized to made to fit those of different heights. Also that if blew up the patterns you should be able to use them as cut guides. This is important since we will have to make some assumptions later about making the farthingale based on just the pattern.

The pattern calls for 6 x 2/3 ells of fabric; this would be 5yrd 18 inches x 22 inch wide fabric. It also lets us know that the original fabric intended was silk. You can make the farthingale out of silk or any sturdy woven material. You can use a cotton twill, which usually comes in 45 inches wide. This is a good choice since it is easily found at your fabric store, and is both durable and usually cheap (I've seen it on sale for 2-3 bucks a yard). To stay with the width of the the fabric called for in the pattern, I like measure and cut a strip of fabric that are at least 22 inches wide. You could, depending on how true to 45" your fabric is, fold it in half and cut down the middle. This would allow you to get two farthingales from the one piece of fabric that was five and a half yards of 45 inch wide.

Next we need to convert given measurements to inches.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>bm = 1 1/2 ell</td>
<td>49.5 inches</td>
</tr>
<tr>
<td>t = 1/3 ell</td>
<td>11 inches</td>
</tr>
<tr>
<td>qqq = 3/4 ell</td>
<td>24.75&quot;</td>
</tr>
<tr>
<td>sb = 5/6 ell</td>
<td>27.5 inches</td>
</tr>
</tbody>
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As the measurements are laid out on the pattern, you will notice there are several pieces of information still missing, and some things are not quite clear. This leads into the first confusing questions on the Alcega pattern for the farthingale. How do we use the numbers given on the pattern?

We know from the text that to cut the front and back you need to fold the fabric in half length wise. This would give you a width now of 11" on your fabric. We also know by both the text and the position of the labeling in the pattern that the length of the Farthingale should be 1 and a 1/2 ells (49.5 inches). Along with the length measurement given in the text is how wide the garment is meant to be: "The Farthingale is 1 1/2 ells long and a little more then 13 hands-spans wide, which seems to me to be sufficient."
So how wide is Alcega's hand-span? Or is a hand-span a standard unit of measurement in Alcega's time? How wide is my hand-span? Does it truly matter? But more importantly is he telling us how wide the total hem is or just the width of half the garment laying flat on itself.

Let's just look at some numbers.

Usually, for a hem for a gown I like to have the total hem twice the cape length of a person. If you're 65" tall, I would have a hem of 112" or, if you're 70" tall, a hem of 124". And, if you happen to be 62" tall, the hem would be 106". Then depending on height of the woman, a hem that is around 105" to 125" would look right. My hand-span, depending on how you measure a hand-span, ranges from 4 1/2 to 8 1/2 inches. So, 13 of my hand-spans could be anywhere from over 59 inches to 110 1/2 inches. That is depending on how you define what a hand-span is. But more importantly, let's look at the measurement given on the pattern. Both the front and back are marked sb which is of course 27.5 inches. Four panels at 27.5 inches would give us 110 inches.

Is sb the quarter panel marking or just for the piece labeled? If we look at the front panel piece, we know a couple of things. The fabric is 22 inches wide and folded in half to give us 11 inches to work with. We are also shown in the pattern what the curved line for the hem should look like. Right away we know that the 27.5 inch line can not be drawn by itself on the folded fabric. I don't think that the 27.5 is just the measurement of the front piece. If we did this and took half of sb for 12.375, this line when drawn into an 11" wide rectangle, gives you a much sharper curve line for a hem as shown. We are also then at a loss for what the widths and lengths of the gores should be. The gores here are the key. We are not given any measurement to what they should be. We also know that 27.5 inches is too much to draw just on the front panel. Though if we draw the hem line on the folded fabric as shown on the pattern then subtract that measurement from 27.5, which would give us what the gore needs to be so that half of the front panel plus the gore equals 27.5 inches. When completed, this gives us a final measurement of 110 inches for our hem.

For the top of the front, we see that it is marked t (11 inches). Luckily we can draw a line as shown and have it measured 11 inches. We know that 11 is the length of the line for the folded fabric and not the total measurement for the top of the front panel. The reason for this is that if it was the total of the top of the front panel, then the line drawn would just be 5 1/2", and a curved line that is just 5 1/2 inches would fall short of the middle of the folded fabric. It is clear though the line extends almost to the end of the folded fabric, so the length of the line must be 11 inches. This gives the front panel a total measurement of 22 inches.
The Top of the back panel is different than the front, though labeled the same way. We are told that the measurement is 24.75 inches. The line goes all the way to the edge of the folded fabric and is a sharper curve than the front. But we still have just 11 inches to work in, so it's obvious that 24.75 inches isn't going to fit. We could draw the line the same way we did with the bottom hem and carry the remainder of the line to the top of the gore, but this would mean the top of the gore would have to be at least 11 inches or greater. If you have read Alcega's intro to his book, we know that he laid out the patterns very proportionally. The patterns show both the fabric folded section for the front and back panels and unfolded for the side gores. Notice that on the back Gore labeled B, we see that it is just around a quarter of the width of the folded section, proving that it is not close to 11 or more inches, but instead more around 4 inches. This does rule out treating the top of the back gore like the bottom of both the front and back panels. If we use the QQQ measurement as the total length of the curved line of the back panel, we are able to fit half of QQQ, which is 12 3/8th inches into the folded fabric as shown.

Now we know that the total width of the front panel is 22 inches and the total width of the back panel is 24.75 inches. Also, we know that the bottom of the gores are 27.5 inches minus 1/2 the amount of the front or back gore. The front gore is just a triangle, but the back gore as a curve line that should come out at least 4 inches into the fabric. We know the length of the gores should match their sides of the panel. That just leaves one question about the length of the angle on the ends of the front panels. Again measuring the proportions of the pattern, this looks around 4 to 5 inches.

This pattern produces 6 pieces. Alcega tells us to first fold the fabric in half width-wise, and cut out the front then the back piece. This gives you one piece for the front and one piece for the back. Next you are to unfold the remaining fabric and then fold it lengthwise over itself. This gives you fabric that is still 22 inches wide but half the length. This is so when you cut out the gores, you are cutting out two front and two back at the same time.

There are specific instructions given to putting the pieces together. The straight edges of the front gores are sewn to the straight edges of the front panel. Next the bias (angled) side of the back gores gets sewn to the straight edges of the back panels. Finally, the new front bias edges are sewn to the straight edges of the new back panel piece. This is important because it means that there are no bias-to-bias seams in the garment. This aids to the strength structure of the garment.
Once the farthingale is together, there are many things that can be used for the hoops. From natural things that were used such as willow, and rope, to modern substitutes such as boning, both plastic and steel, and even seen the use of rigid plastic tubing that you would find in the plumbing section of your local home depot. You want to get something that is rigid enough to hold the bell shape of the farthingale and also to support the weight of the outer layers too. But not rigid to the point that the hoops can’t be gathered or bent in, if needed. I would recommend the plastic boning over the steel.

To hold the hoops in place, take strips of bias cut material to form casings that the hoops can slide into, again it would be up to you if you want to make the hoops removable. There are many reasons I use this method instead of the one mentioned by Janet Arnold. She Talks about in her book “Patterns of Fashion:”, about using the farthingale itself to make the casings for the hoops. There are several issues why this doesn't work nicely. First, the front and back of the farthingale make a trapezoid shape, if the farthingale was just a cylinder you could easily take some of the length and back it up to make the casings. But Since instead we are dealing with bell shape caused by the two trapezoidal pieces, the further down you go in the length of the garment the width of the garment increases. So if we do as Janet Arnold suggests, when we take up the farthingale in it's length to make the hoop, we would be dealing with two different widths of material. Which means you can not simply sew the farthingale to itself, with out trying to ease or pleat the one layer into the other. Strips of fabric here are just the easiest way to go. Also another reason her idea here doesn't seam to work, is that she states that the farthingale is cut longer then needed, meaning that the extra length is used as the take up to make the casings, But if you compare the farthingale to other skirts that Alcega has in his book. we see that the farthingale is right about the same thing of the outer skirting’s, showing that the farthingale is not made longer then needed.

The Final thing we need to address on making the farthingale is the waist line. Unfortunately Alcega does not give us definite answer on how to do this. The easiest way that I see most often, is a simple draw string to close the farthingale. The other option that I have seen is to cut two waist bands, one for the front and one for the back. The front and the back pieces are pleated into the waist bands. The sides seams are then sewn up but you stop the seam about 4~6 inches shy of the waist band area. this allows the farthingale to open up to take off or put on, the waist bands then overlap and secure with either buttons or ties. The instructions seem to support the band method for finishing the top. Alcega mentions that though the measurements listed don't support it, the back width is smaller then the front. this can be accomplished in gathering of material into the waist band.

How to adapt the farthingale for you, as we saw earlier, this farthingale as laid out, is for someone that is about 5’4 give or take a couple of inches, so depending on your height no changes may be need. To alter the pattern we want to change the length of it to be equal to your out seam (from your waist to the floor) and add 3-4 inches, see lower part about fitting. Then for the measurement of hem to what you want we want to base it for you (take your height – 9 * 2). The front and back pieces have there sides paralleled, but the top and bottom are curved. Just reproduce the curves as they appear in pattern, in fact the bottom could be left squared if wanted and adjusted when fitting. The gores are again are determined by the width of the body. It is important to do the gores as shown so that you do not have bias to bias at the side seams. This would still make having a fabric width of 20~28 inches depending on your hem. When you fit the farthingale, you want the length not to exceed six inches off the ground, less is better. if more then six inches your outer skirting, if longer will break and shelf to the ground. Your hoops should be place around 6 to 10 inches apart. The goal is to balance the number of hoops you have to place into the farthingale, and yet still allow it to hold the outer skirting flat against it.
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