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# PANTS FOR WOMEN==Fashion and Fit



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# Pants for Women==Fashion and Fit

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Pants have become an important part of the modern wardrobe and may be worn for nearly every occasion. Even though the names and styles of pant-type garments change with fashion, the need for a good fit is always the same.

The directions in this circular are for making pants with side seams, zipper placket, applied waistband, and a lining (optional).

## PATTERN SELECTION

The pattern size is determined by the hip size, taken eight to nine inches below the waistline. This keeps pattern alterations to a minimum. Choose a pattern with a full-length leg, even though you plan to make shorter pants. The grainline cannot be properly established unless a full-length pattern is used.

## FABRIC SELECTION

Select a firmly *woven* fabric. All wool or predominately wool fabrics are recommended, but other fabrics may be used. Do not select stiff fabric if you are making tapered pants. Discarded men's trousers, in good condition, are an excellent source of fabric. Do not use permanent-press trousers or those with a high percentage of synthetic fibers because the original crease line cannot be removed.

Plaids may be used. Avoid unbalanced plaids unless you have had experience in handling plaids.

Linings may be of a man-made fiber or a cotton blend. Batiste, acetate, or rayon sheath linings are not usually recommended.

*Findings needed include:* a zipper, matching thread, two hooks and eyes or a wide, flat hook and eye, one snap fastener or a button and matching grosgrain ribbon, one-inch wide and nine inches longer than your waistline measurement.

## ACCURATE MEASUREMENTS

Pants patterns cannot be fitted on the figure. Therefore, it is important to know your measurements and understand your figure variations in order to select and prepare a pattern for making a comfortable, well-fitting garment.

You will need someone to take your measurements. Wear the undergarments you would normally wear with pants. Place a fitting band or a tape around the waistline for a point of reference for all vertical measurements. It should be snug enough to support the pants but loose enough to be comfortable. A fitting band is a strip of fabric six inches longer than the waistline,

marked to indicate center front, center back, and both side seams. Use a three-inch strip of firmly woven fabric, folded in thirds to make a one-inch strip. Edge stitch both edges. Use different colored threads to indicate center markings and side markings.

Record your measurements in the first column of the chart on page 4, including the amount of ease suggested.

Measure the pattern and record the measurements in the middle column. Measure the entire crotch length as shown in Figure 1. Match the inseams of the back and front legs at the lowest point of the crotch. Place the tapeline on edge to measure. Compare the measurements in both columns to determine the amount the pattern should be enlarged or made smaller. Record the difference in the right hand column. Use a plus sign before the number of inches it must be enlarged (+3) and a minus sign if it must be made smaller (-3).

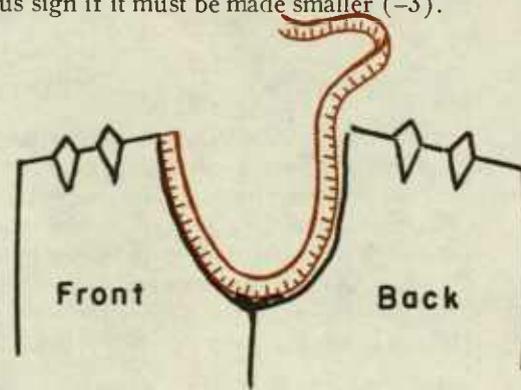


FIGURE 1

## PATTERN PREPARATION

Do not trim seam allowances from printed patterns until they are measured, altered, and the necessary markings have been added. Patterns may differ in the location of the lengthwise grainline, the shape of the crotch, the length of the back crotch, and the location of the darts.

Establish the lengthwise grainline in the back and front. If the garment needs to be widened, make the

	Personal measurement	Pattern measurement	Alteration needed
Waist measurement plus 0-1" ease; add ease in garment, not waistband .....			
Hips at fullest part plus 2" ease _____ inches below waistline .....			
Crotch measured between the legs from center front waistline to center back waistline plus $\frac{1}{2}$ -1" ease for average figures, 3" for full figures. Crotch seam should be fairly snug. Take measurement when standing. You can check this by comparing your measurement with the crotch measurement of a comfortable pair of pants .....			
Thigh at the crotch plus 2" ease .....			
Knee plus 2" ease .....			
Calf plus 2" ease .....			
Instep .....			
Length of outseam (outside leg seam) from waist to ankle bone or to desired length .....			
Length of outseam to center of knee .....			

necessary alteration before marking the grainline. To increase the width, make the alteration between the outer dart and the side edge of both pattern pieces, parallel to the lengthwise grainline printed on the pattern. Fold and crease each piece lengthwise, matching the seam markings on the pattern at the hem and knee. Unfold the pattern and draw a line on the crease. The creases in the pants will be pressed on the grainlines just established.

Draw the hipline at the seven-inch mark, the crotch line, and the knee line, perpendicular to the grainlines, as in Figure 2.

The front and back crotch (center) seams on some patterns, unfortunately, are so slanted that the finished seam gives the appearance of a dart and makes fitting difficult. Pants pull down in back when you are seated if the back crotch seam is too bias. In order to straighten the crotch seams, draw a line parallel to the corrected grainlines, starting on the seamline about an inch above the deepest curve of the crotch up to the waistline. See Figure 3. This makes the curve of the crotch a "U" shape and gives a more comfortable fit. Apply colored tissue paper with rubber cement where needed.

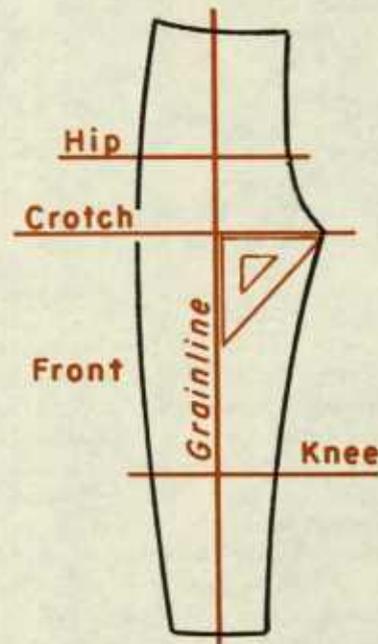


FIGURE 2

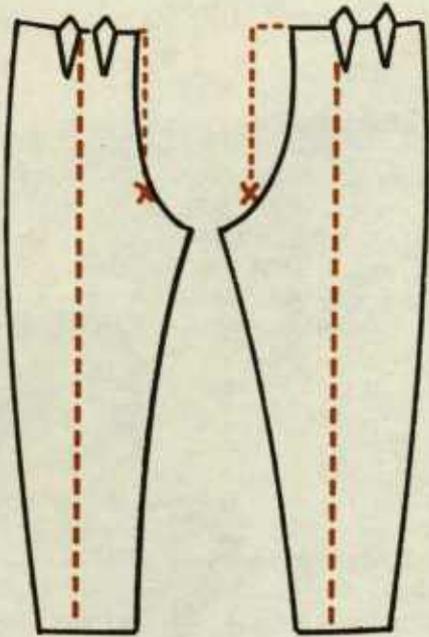


FIGURE 3

Alter the pattern if necessary. If the garment is to be lined, the lining, which is cut after the first fitting, must be the same size and shape as the garment. If any changes are made during fitting, alter the pattern the same amount. It can be used again if your figure does not change, without having to fit each garment.

Most commercial patterns have lines indicating where pants may be lengthened or shortened. This is an easy way to enlarge a pattern. Draw two parallel lines on tissue paper, the distance between them the same amount as the pattern will be spread. Draw them a little longer than the line that will be cut and spread. Paste the cut edges of the patterns on the lines on the tissue paper with rubber cement. Keep the grainline straight.

*Alterations in length of crotch.* If too short, cut the pattern on the lengthen-or-shorten line and spread the two pieces the amount needed. Paste on tissue, keeping the grainlines straight and the cut edges parallel. Make the same alteration in back and front.

If too long, fold a tuck on the lengthen-or-shorten line to remove the excess amount. If the pattern is not marked, alter on the seven-inch line below the waistline.

*Alterations in length of leg.* Lengthen or shorten, as needed, midway between the crotch line and the knee line or the knee line and the hemline.

Measure down from the waist at the side to determine the leg length desired. Mark the pattern. Allow  $1\frac{1}{2}$  to 2 inches for a hem. If making shorts, add  $\frac{1}{2}$  inch to the inseam length to give the appearance of an even hemline when the garment is finished. See Figure 4.

Add a one inch seam allowance, for fitting purposes, at the waistline and outseam (inside leg seam). Apply tissue paper where needed. Trim pattern edges after all seam allowances have been drawn.

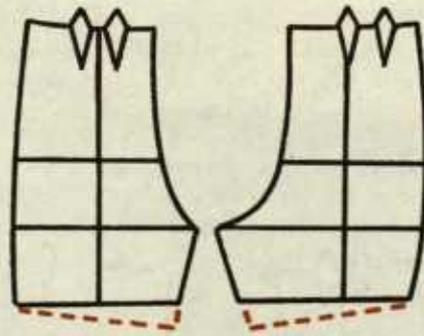


FIGURE 4

## DESIGNING YOUR OWN PANTS

Pants legs with varying degrees of fullness may be designed from a basic pants pattern.

### *Bell bottom trousers*

Determine the amount of fullness you want at the hemline. Measure the hemline of both pattern pieces. Subtract this number from the amount of fullness desired. Divide the remainder by four to determine the amount that must be added to each seam at the hemline.

For example:

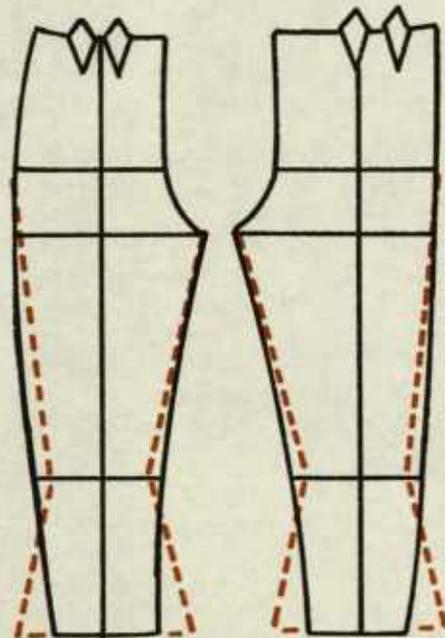
Fullness desired	= 25 inches
Pattern measurement	= 17 inches

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8 inches

(8 divided by 4 equals 2 inches to be added to each seam)

Draw lines from the hemline up to the knee line as shown in Figure 5.



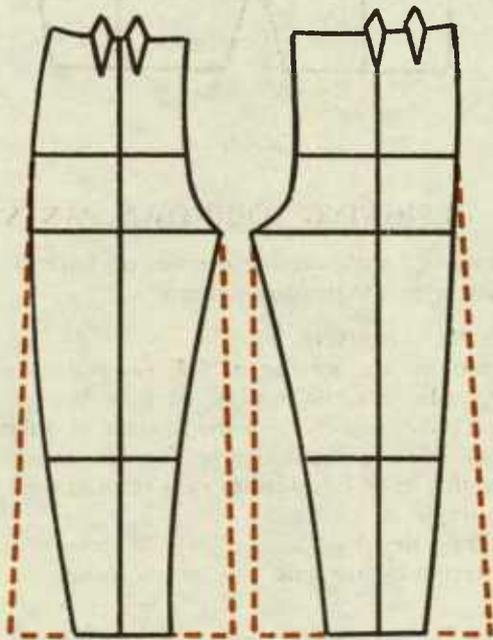
**Bell Bottom**

FIGURE 5

## Hostess pants

Widen the hemline on both sides of each pattern piece a minimum of four inches. Draw lines from the extended hemline to the hipline and the point of the crotch as shown in Figure 6.

If a shorter length is desired, extend the hemline at that level and draw up to the hipline and point of crotch.



Hostess

FIGURE 6

## PATTERN LAYOUT AND CUTTING

Refer to the pattern instruction sheet for layouts. One-way designs and napped fabrics must be cut with the pattern pieces going in the same direction. If you are using plaid fabric, decide which lengthwise lines you want at the outseams. Sometimes the tapering necessary to fit the waist and legs causes the lines to form a diamond design which has a broadening effect on the figure. Plan which crosswise stripe you want at the widest part of the hip, too.

Match plaids at the seven-inch hipline.

Cut with the grain.

Cut the waistband exactly on grain, twice the width of the grosgrain plus  $\frac{1}{4}$  inch, and 5 inches longer than the waist measurement. The waistband in plaid fabrics may be cut either on the lengthwise or on the crosswise grain, depending on the design.

Cut the lining after the first fitting in case the pattern has to be altered.

## MARKING

Use tailor tacks to mark all darts, tucks, crotch seams, and outseams at waistline and hem. Mark *original* seamline on crotch seam with hand basting.

Stay stitch the waistline  $\frac{1}{4}$  inch outside the seamline. Stay stitch the seamlines at the placket, the length of the zipper. *Do not* stay stitch the crotch seam.

Baste the lengthwise and crosswise grainlines with contrasting colored thread if the fabric is not a plaid. Put the crosswise grainlines at a right angle to the lengthwise grainline at the seven-inch hipline marking, the crotch, and the knee.

Identify the lines in the plaid that are the lengthwise and crosswise grainlines. Safety pins can be used for this identification.

Press the creases before basting the garment together. Fold on the lengthwise grainline and baste. When pressing the crease, lay the fold on a plaid press cloth and use a line in the fabric as a guide to help you keep the crease straight. If you do not have a plaid press cloth, lay the fold against a yard stick and press. In the front, press *only* to the point of the dart. See Figure 7. In the back, press *up* to the crotch level as in Figure 8.

## PREPARING FOR THE FIRST FITTING

Baste darts, outseams, and inseams, in that order.

Put one leg inside the other, right sides of fabric facing, to baste the crotch seam. Do not baste through the seam allowances at the crossing of the inseam and crotch seams.

Pin the fitting band to the inside of the garment with the lower edge of the band on the stay stitching. Match the markings on the band to the garment at the center front, center back, and outseams. Place pins on the garment side.

## FITTING

Read the following suggestions and those in the pattern guide sheet before fitting the garment.

Check the grainlines, ease, balance, and the position of all seams when fitting the garment. Remember, drag lines point to the source of the trouble. Start at the seven-inch grainline first and fit the front, then the back. The crosswise grainline at the seven-inch hipline must be kept parallel to the floor. The creases in each leg must be perpendicular to the floor. Pants have four centers, whereas skirts only have two.

Adjust the darts before fitting the outseams. The darts may be shifted to the area where they are needed. Mini-darts, about two inches long, may be used between the large darts and the side seams.

A slight garment bias in the center back seam is acceptable. Sometimes it is impossible to match plaids at the inseams. Just remember these are the least noticeable seams in the garment. Pants may be tapered in the fabric. Indicate the amount tapered on the pattern.

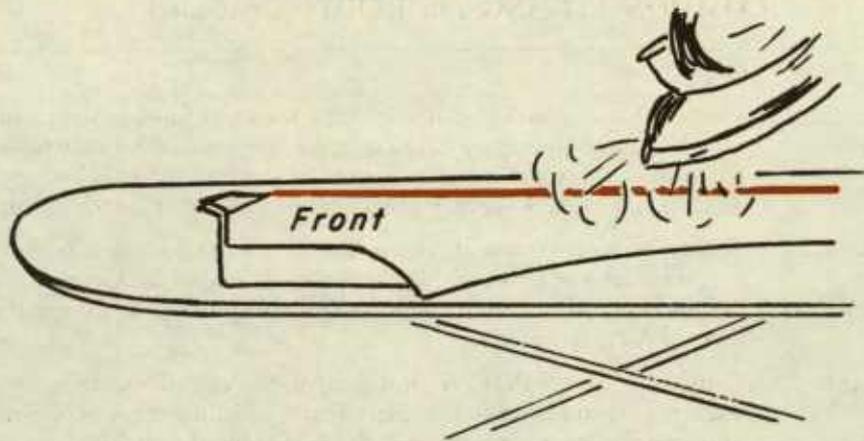


FIGURE 7

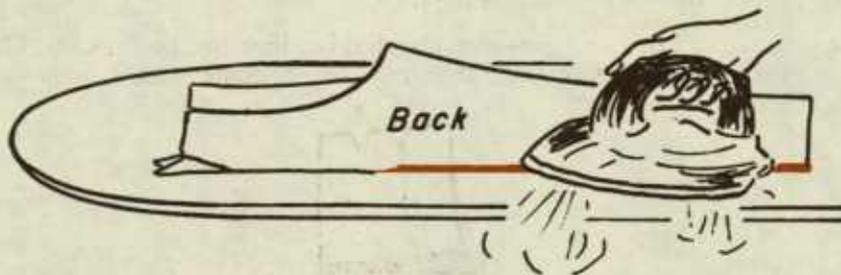


FIGURE 8

Put tailor tacks through the fitting band and the garment to show where CF, CB, outseams, and ease

occur. Re-baste, if necessary. If alterations were made in the garment, make them in the pattern.

### COMMON FITTING PROBLEMS

Problem:	Correction:
Crotch too long .....	Fit out excess length with an even tuck pinned all the way around approximately at the seven-inch hipline marking. Make alteration of this amount in the pattern. Recut the garment using the altered pattern.
Crotch too short .....	Adjust the waistline seam by setting the lower edge of the fitting band above the stay stitching on the waistline.
Crotch too tight .....	Let out inseam at point of crotch. Taper new seam down to original inseam seamline.
Wrinkles radiate from the crotch in front .....	Pants may fit too tightly in hip area. Release outseams. Crotch width may be too small. Let out inseams of both back and front.
Crotch too loose .....	Take in inseam at point of crotch. Taper new seam down to original inseam seamline.
Waistline pulls down at center front or back .....	Set fitting band higher at center of waistline, tapering to original seamline at sides.
Horizontal wrinkles across back below waistline .....	Pants may be too tight. Let out the outseams or back crotch seam.

## COMMON FITTING PROBLEMS—Continued

Problem:	Correction:
Saggy seat .....	Caused by sway back or flat seat. Fit out excess fullness with a tuck beginning at the crotch seam, tapering to nothing at the outseams. The crotch seam may need to be taken in at the waistline and tapered to the original seamline about half way down. The inseam of back leg may also be taken in to decrease width. Shorten darts.
Side seams swing forward .....	Caused by a prominent abdomen. Lower waistline seam at front crotch seams, tapering to nothing at outseams. Raise the upper end of back crotch seam until outseam is perpendicular to the floor. Taper waistline seam to original seamline at sides. Change tapered darts to tucks.
Side seams swing backward .....	Caused by a large derriere. Raise the upper end of the front crotch seam until outseam is perpendicular to the floor. Taper waistline seam to original seamline at sides. If necessary, let out inseam of back leg at point of crotch.
Pants pull down in back when you sit down .....	The back crotch may not have a deep enough curve to give sitting room. Re-shape crotch seam by cutting a deeper curve; let out the outseams. Or, cut and spread pattern on hipline. See Figure 9.
Crease lines hang askew .....	Caused by figure irregularities, i.e., high hip, bowlegs, etc. Choose all-over print designs or fabrics which do not have horizontal lines in either design or weave.

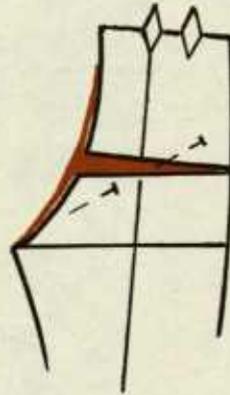


FIGURE 9

## POSTURE AND FIGURE VARIATIONS

Large waist, flat seat .....	Decrease back dart to $\frac{3}{4}$ " or 1" in depth. Shorten darts about 1". Let out the outseams at the waistline, if necessary, tapering to the original seamline at the hipline.
Large waist, flat abdomen .....	Decrease depth of both front darts, or eliminate one. If necessary, let out the outseams at the waistline, tapering to the original seamline at the hipline.
Large hips, small waistline .....	Use two smaller darts instead of one. Mini-darts (about 2" long) may be used between the large darts and the side seams. Shape the outseams at the hipline to match body contours.
Protruding hip bones .....	Position a waistline dart in the front above the bone. Shorten dart, if necessary.
Profile indicates waistline slopes down in back .....	Usually need to raise front waistline seam at center front, lower the back waistline seam and add to the inseam of the back leg at the point of the crotch.
Profile indicates waistline slopes down in front .....	Lower the front waistline seam, add to the back waistline seam allowance and add to the inseam of the back leg at the point of the crotch.
Bowlegs .....	See the section on bowlegs on the next page.

## PANTS FOR BOWLEGS

This figure variation can be camouflaged by doing one or more of the following: (1) Choose an all-over design instead of plaids or stripes. (2) Do not press a crease, especially in plain fabric. (3) Choose pants with wide legs, not snug, skinny pants.

It is not as difficult to make well-fitting pants for a bow-legged person as it may seem. Alter the pattern according to the directions which follow.

Because a pants pattern cannot be fitted on the figure, it is necessary to make the garment in muslin first. Prepare the crotch seam of a full length pattern according to the directions on page 3. Make necessary alterations except for the bowlegs. Cut, mark, and assemble the muslin pants according to the directions given earlier. Prepare pants for the first fitting.

Try on the garment and determine where the crease lines should be in order to hang straight. Check both front and back. Place marks at the hem in front and back to show where the lower ends of the creases should be. The upper end of the crease line usually does not change.

Trace the altered pattern pieces on a large sheet of plain paper. Mark the hip, crotch, and crease lines. Measure the distance between the original crease line and the mark for the new crease line on the garment.

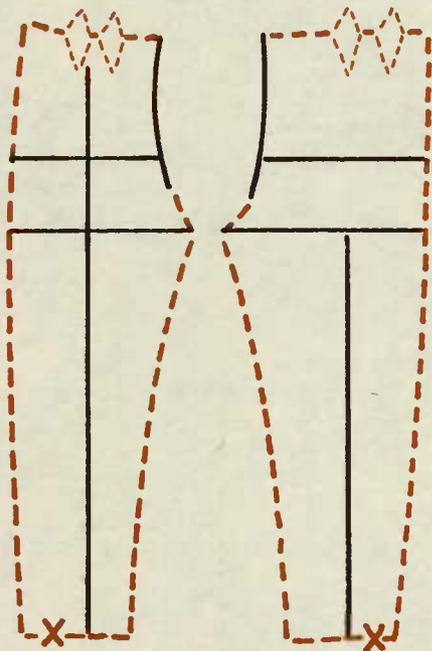


FIGURE 10

Place a mark at the hemline where the lower end of the crease line should be. See Figure 10.

Cut the original pattern pieces on the crotch line, beginning at the inseam. Place the cut pattern on top of the traced paper, matching all markings. Spread the pattern at the inseam until the lower end of the crease line is moved the desired amount as in Figure 11. Draw

a line from this mark to the upper end of the original crease line. This is the new crease line and grainline.

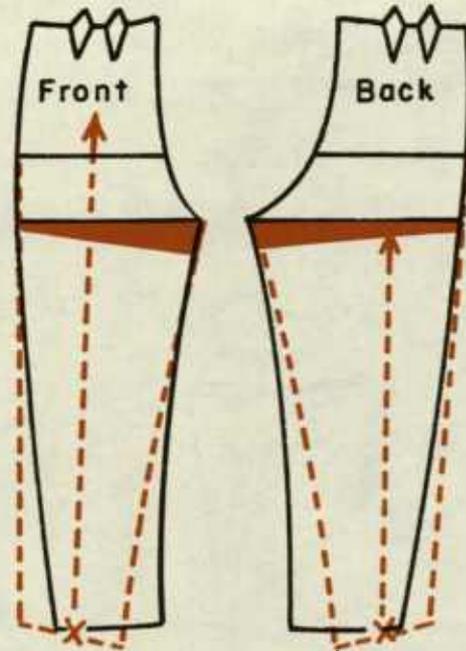


FIGURE 11

Notice the outseam and inseam have shifted. To establish a new outseam, draw a straight line from the lower end of the original pattern up to the hipline. Draw a line from the lower end of the inseam up to the crotch, using the original pattern as a guide. The length of the inseam on the original pattern is longer than the traced pattern because it was spread apart. Shorten the inseam at the hemline by cutting off the same amount that the pattern was spread apart, tapering to nothing at the outseam, as indicated by the arrows in Figure 12. Use tissue paper and rubber cement to alter the original pattern to correspond with the new lines drawn on the paper.

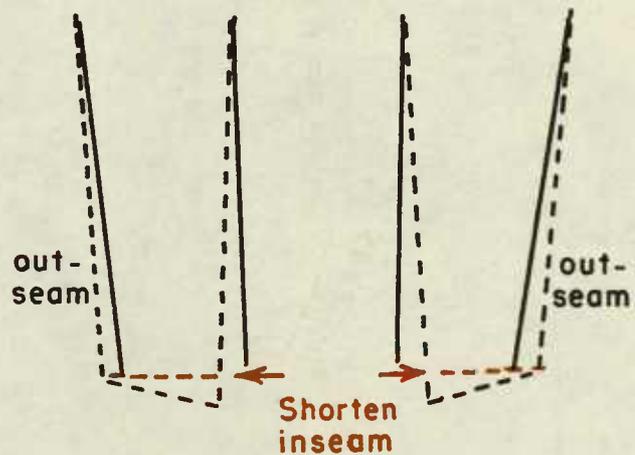


FIGURE 12

Before cutting the fabric, double check your alteration by testing it in the muslin garment. Apply fabric to the garment to correspond with the tissue applied to the pattern.

When cutting the garment, place the new (adjusted) crease line on the lengthwise grain of the fabric.

## STITCHING

Use a regulation stitch length. Regulate pressure on the presser foot according to thickness of fabric. Stitch in the order the garment was basted together.

Stitch darts. Press toward the front and back crotch seams, using a pressing ham. A curved dart may be used over a curved area. See Figure 13.

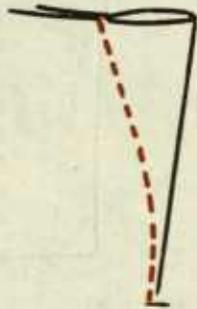


FIGURE 13

Stitch the outseams with the grain, matching notches. Stop at the marking for the zipper if you are using a side zipper. Trim seams to one inch. Press open.

Stitch the inseams with the grain, matching the notches. Trim to  $\frac{5}{8}$  inch. Press open, using a sleeve board.

Match the inseams and stitch the crotch. Stitch the front crotch seam with the grain, starting about one inch from the inseam stitching line. *Do not* stretch the front curve. Stitch the back crotch seam with the grain, overlapping the front crotch stitching about one inch. Stretch the curve slightly (about  $\frac{1}{2}$ " ) as you stitch. See

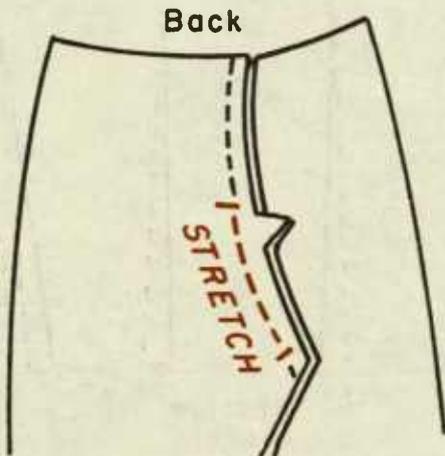


FIGURE 14

Figure 14. Stop at the marking for the zipper if you are using a back zipper; otherwise stitch up to the waistline.

Reinforce the curve of the crotch seam by stitching a second row of stitching on top of the original stitching line. Trim the curved seam to  $\frac{3}{8}$  inch. Trim the crotch seams above the curve to  $\frac{5}{8}$  inch. Press the upper seams open, but do not press the curved seams open. Do not clip the seam. If you are using a back zipper, trim the seam after the zipper is applied.

Apply the zipper before attaching the lining.

## MAKING FREE-HANGING LININGS

Cut the lining, using the altered pattern. Stitch it in the order the garment was sewed together. Leave an opening for the placket about one inch longer than the zipper. Press the seams open. Baste the lining to the pants at the waistline, wrong sides together. Hand basting is usually preferable to machine basting because most linings are quite slippery.

Turn the darts in the opposite direction. Instead of darts, the fullness may be eased in or folded and pressed.

Catch the lining in place at the lower end of the zipper with a swing (French) tack or hand stitch it to the zipper tape.

## PREPARING WAISTBANDS

The waistband is applied after the pants have been fitted, stitched, pressed, and the zipper and free-hanging lining have been applied.

Shrink the grosgrain by placing it in hot water, allowing it to remain there until the water is cool. Remove and let dry. Steam press the grosgrain, pulling on it as you press to eliminate the stretch.

Baste two parallel lines on the wool waistband the entire length of the band and on the exact grain. The distance between the basting lines should be the width of the grosgrain plus  $\frac{1}{8}$  inch. Fold on the basting lines, wrong sides facing, and press. The two cut edges should meet in the center. See Figure 15.

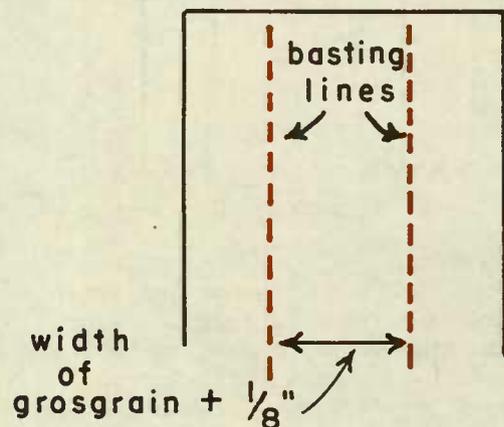


FIGURE 15

Fold one end of the grosgrain lengthwise, matching the selvage edges. Stitch across the end about  $\frac{1}{4}$  inch from the cut edge to make a pointed end. See Figure 16. Trim the seam to  $\frac{1}{8}$  inch. Trim the folded corner close to the stitching line to remove excess bulk. Finger press the seam open. Turn the seam to the inside. Press the point. Hand baste both sides of the point as in Figure 17.



FIGURE 16

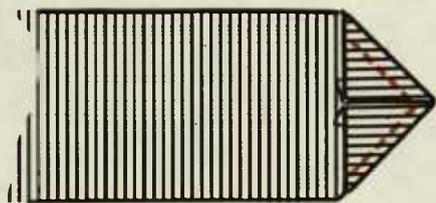


FIGURE 17

Make a pointed end on the wool band in the same manner as was done for the grosgrain. Be sure that the right sides are together. Press. Trim away excess bulk as indicated by the solid area in Figure 18. Option: The pointed end may be made *before* the lengthwise pressing is done.

Join the grosgrain and wool band by lapping grosgrain onto the band about  $\frac{1}{16}$  inch from the fold line as shown in Figure 19, *Stitch* on the grosgrain side *close* to selvage, starting about  $\frac{3}{8}$  inch away from the angle at "A."

Open the waistband and transfer the waistline measurements from the fitting band to the grosgrain and to the wool band, starting one inch from the pointed end of the grosgrain. See Figure 20. Use hand basting to mark the CF, CB, and both sides. Use double lines or

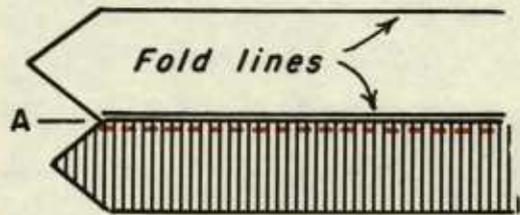


FIGURE 19

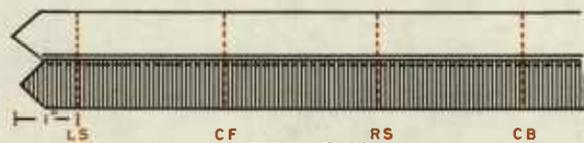


FIGURE 20

different colored thread at CF and CB to identify these locations. Allow at least a two-inch underlap (extension beyond the waist measurement).

Press and shape the band to conform to the curve of the garment top, as in Figure 21, by slightly stretching the lower edge.



FIGURE 21

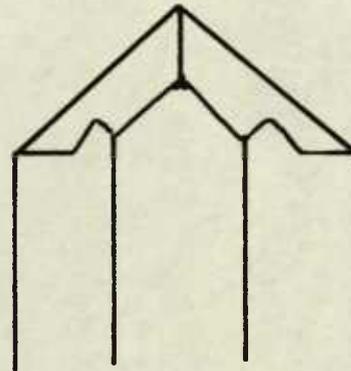
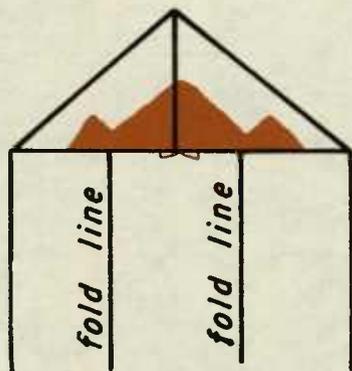


FIGURE 18

## APPLYING WAISTBANDS

Open the wool band and pin to garment, *exactly* matching side seam markings of band to outseams of garment, as well as CF to CF and CB to CB. *The folded edge of the band should lie on the waistline seam.* See Figure 22. Ease the fullness on the side hip area in front and back. *Hand baste.* Stitch along the basted line.

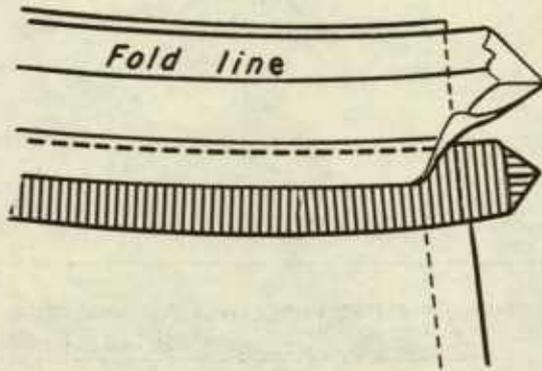


FIGURE 22

Grade the garment side of seam allowance. Press as flat as possible.

Allow the grosgrain to lie in place, covering the wool seam. Match CF, CB, and side seam locations. Pin in place with pin at right angles to the seamline as in Figure 23. *The grain must remain straight.*

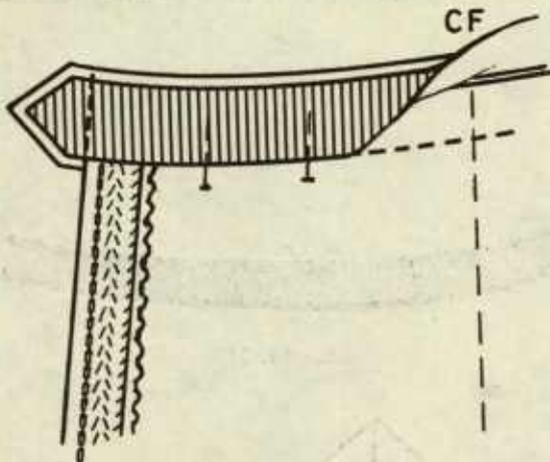


FIGURE 23

Slip stitch the grosgrain to the stitched line on the wrong side of garment.

Apply fasteners to the waistband. Use two hooks and eyes or a flat skirt hook and eye. Sew the eye on the wool side at the end of the underlap. Determine the placement of the hook by fastening it over the stitched eye. Roll the band over the thumbs to simulate the curved position the band assumes when worn. Mark the location with chalk or pins. Sew the hook in place on the grosgrain side.

Sew the ball part of a snap fastener to the pointed end of the band. Do not place it too close to the point. Attach the socket part to the wool layer. See Figure 24. Be sure the snap fastener is placed so the placket line will remain in a straight line when it is fastened.

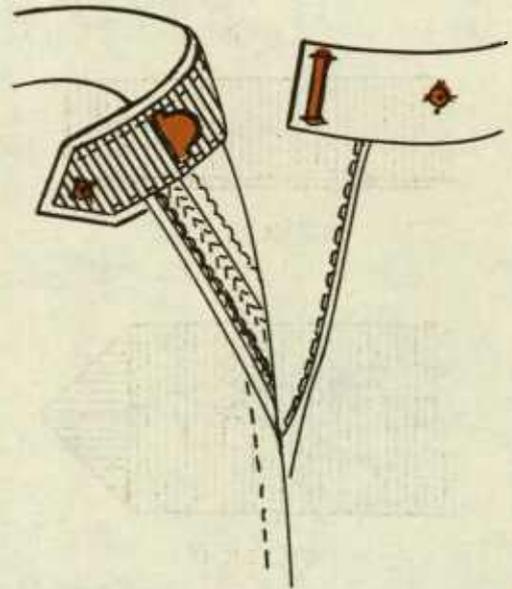


FIGURE 24

## MAKING HEMS

Try on the pants. Turn the edge of one leg to determine the desired length of the hemline. Mark the fold line. Transfer marks to the other leg. The hems will follow the crosswise grainline if the hipline is on grain.

The maximum depth of hems in pants is 1½ inches.

Finish the edge and use the dressmaker's hem. Do not pull the stitches too tight.

The lining hem may be finished by one of two methods:

1. Hem it separately and attach it to the seams with French tacks or small whipping stitches; or
2. Hem it to the wool with an ease pleat as in a jacket lining. This is preferable, for shorts especially.

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