Sleeves for Work Dresses

by

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Sleeves for Work Dresses

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The sleeve designs presented in this bulletin were developed in the course of a research project during the past two years. A questionnaire, sent to a selected group of Oregon housewives and followed by personal survey, determined that the primary need in work dresses was improved sleeves. This problem was given first attention in the project. Criteria were set up as follows: The sleeves must allow reach, permit easy movement, return to position after use, be comfortable, and be relatively easy to iron.

A wearing test was conducted to check the comfort and wearing ability of dresses made with various sleeve designs under typical working conditions. Seven women wore dresses which were made in the course of the research, 1,000 hours each. A record was kept of the activities performed by each of the women during each wearing. To insure standard conditions, the garments were sent to the laboratory for laundering.

The sleeve design incorporating the bias gusset which proved to be best by the wearing test is adaptable to both commercial patterns and ready-to-wear dresses. It also has possibilities of incorporation into children's clothing and men's shirts.

Why Do My Sleeves Tear?

Observations of women performing household tasks showed many strain wrinkles appearing in the sleeve area, either in the sleeve alone, or in the blouse just in back of, or in front of, or under the sleeve. No wonder the sleeves tear in these places. The dotted lines show the location of the strain corresponding to the height at which the arms are raised.

Positions correspond to the numbers on the diagram.
1. Arms overhead.
2. Arms upward.
3. Arms forward.
4. Arms swinging to side.
5. Arms forward and down.
Sleeves for Action

Suggestion: White wrapping tissue is very satisfactory for pattern making or altering.
Fold sleeve lengthwise matching underarm corner to locate center grain. Test your pattern first by cutting it in muslin or other trial fabric.
Freer movement with set-in sleeves may be achieved by using these suggestions.

1. Top pleat
   a. Fold a 2" box pleat in fabric.
   b. Mark center grain line on sleeve pattern.
   c. Place grain line along pleat folds, pin and cut.
   d. Reverse pattern and repeat for the other sleeve.

2. Button or gripper opening
   a. Mark center grain line of sleeve pattern. Cut on line.
   b. In fabric fold hems 1" wide following the grain line.
   c. Place front sleeve pattern on edge of folded fabric and cut.
   d. Place back sleeve pattern along stitching line allowing for underlap. Cut around pattern.
   e. Close with button and buttonholes, grippers, or snaps.

3. Top slash opening
   a. Mark center grain line of sleeve pattern.
   b. Slash up from the bottom the desired length.
   c. Face slash opening with matching or contrasting fabric.
4. Overlapped sleeves
a. On plain sleeve pattern, mark points 1 and 2 locating the amount of overlap, and point 3, the crossing.
b. Connect points 1 and 4, 2 and 5 with curved lines, crossed at 3.
c. Draw a straight grain line on tissue paper. Lay tissue over marked sleeve pattern placing tissue grain line exactly on underarm seam. Trace around sleeve front, move tissue to bring underarm seams together and trace around sleeve back. Mark notches and top perforation. Cut new pattern.
d. For gathers at top, slash new pattern in two places on each side of top sleeve mark as shown in No. 1. Spread slashes $\frac{3}{4}"$, raise the sleeve cap $1\frac{1}{4}"$ as shown in No. 2. Trace new sleeve pattern.

5. Underlapped sleeve
a. Use cap sleeve or plain sleeve with low cap.
b. Draw straight line on tissue. Place sleeve pattern over this, with center grain line coinciding. Trace sleeve.
c. Turn sleeve pattern over, placing back underarm seam line on back seam of tracing, and trace underlap section $1\frac{3}{4}"$ wide. Repeat for front underlap.
d. Draw desired shape of lower sleeve edge and cut out pattern.
Free Movement by Use of Bias

Sleeves with bias gussets, because of the natural stretch, will allow greater freedom of movement than sleeves which do not have a bias gusset. The following gussets may be set into any garment now on hand to release underarm strain or may be incorporated in commercial patterns.

1. Long bias gusset
   a. Remove a 2" strip from underarm of back, front, and sleeve pattern, as indicated.
   b. Cut a bias strip the combined length of sleeve and blouse underarm seam and 4" wide, adding seam allowance.
   c. Set sleeve into armscye and sew in bias gusset.
   d. Gather bias slightly when joining blouse and skirt at waistline when bust is low and full. For more slender waistlines, narrow bias to 3" at waist. For heavy upper arms, widen bias at the armscye, as shown on page 22. Gusset shape when extending into a peplum also is shown on page 22.

2. Short bias gusset (use with side placket or zipper).
   a. Remove 2" strip along front and back sleeve seam lines.
   b. Mark a point \( \frac{3}{4} \)" above the desired end of placket. Cut off a 2" strip along blouse front and back seam lines, with the point end \( \frac{3}{4} \)" above placket.
   c. Cut a bias strip 4" wide plus seams and the combined length of the pieces removed from the sleeve and blouse. Continue as in 1c.
Bias Gusset Adapted for Man's Sport Shirt

Using a commercial pattern follow the same procedure as in the woman's blouse.

a. Remove a 2" strip from underarm seam of back, front, and sleeve pattern as indicated by dotted lines.

b. Cut bias 4" wide plus seams and the combined length of sleeve and blouse underarm. The procedure is the same as for the woman's blouse—i.e., first sew sleeve into armseve, then add the gusset.

c. A gradual widening of the gusset 1" at the underarm seemed desirable, when after 6 months wear the stitching line broke at that location (marked X) in one of the men's shirts. This is a good suggestion to use, especially for men who are very broad shouldered.

d. For long sleeves, bring the bias to a point ending above the elbow as shown. This plan also may be followed when making long or three-quarter length sleeves in women's dresses.

Sewing suggestion:

For flat-felled seams in the shirt, fell straight edge of the front and back on top of bias on the outside.

To avoid stretching bias when stitching the inset, place bias on the bottom next to the feed of the machine and the straight grain on the top.
Diamond-Shaped Gussets

These may be used to release strain in a kimono sleeve.

a. Mark the slash at deepest underarm curve. The length is equal to one side of the gusset, plus seam allowance.

b. Reinforce slash with line of machine stitching having one stitch across end. Cut on the line marked for slash, as shown.

c. Stitch plain seam on inside as shown.

d. Add outside stitching \( \frac{1}{4}'' \) from seam for reinforcement and longer wear.

Dimensions are given here for the regular and for elongated diamond. The size may vary, depending on the fullness desired.

Oval Bias Gusset

a. Cut oval shape bias gusset size 3'' by 6'' pointed on crosswise ends.

b. Mark center of curved edges. Insert gusset between sleeve and blouse at underarm, matching gusset center and sleeve underarm seam. Nothing is cut away from the original sleeve or blouse for this gusset.

c. Sew sleeve into armseycye, matching notches with center gusset mark and blouse underarm seam.

Gusset may be placed either horizontally into the armseycye, or vertically into the side seam.
Free Movement in Other Types of Sleeves

1. Square-cut armscye with double bias cap sleeve lapped at underarm
   a. To make square armscye (size 16-18), mark over 2" from front and back side seams at the underarm.
   b. Draw a line parallel to center front and 8" from shoulder seam to underarm mark. Repeat for back, making line 8¼" long.
   c. Draft cap sleeve as shown. Begin with a base line 23¼" long. (No seams are allowed in measurements.)
   d. Draw a 5½" perpendicular line at center of base line. Mark off 3" from each end of base line and draw perpendiculars up 3½". Connect ends of perpendiculars with curved lines as illustrated.
   e. Allow ⅝" from drawn lines for seams.
   f. Mark grain line and place base line on bias fold to cut.

2. Square armscye
   These sleeves give much freedom, especially if the sleeves and yoke are cut on the bias.
3. Sleeves and yoke cut in one

4. Bias-cut blouse and sleeve in one

Designs similar to those suggested in 2, 3, and 4 above may be found in commercial patterns.

Judge the success of your sleeve by these points:

- Does it allow reach?
- Does it permit easy movement?
- Does it return to place after reach?
- Is it comfortable?
- Is it reasonably easy to iron?

Probably no sleeve rates 100 per cent. Only a completely sleeveless dress eliminates the problem. Oregon's cool climate and the heavy upper arms of mature figures call for coverage, however.

>Note: In all directions given on pages 8, 9, and 22 for removal of 2" from pattern at back and front of blouse and sleeve underarm, similar results may be obtained as follows:
1. Cut the garment exactly the same as the pattern.
2. Cut the gusset the required size.
3. Lay the gusset on the garment in the desired position and stitch in place.
4. Trim excess fabric from underneath.
Dress Designs for the Mature Figure

The dress designs used in the house dress project actually began with the sleeve patterns developed in the study. To these were added necklines, openings, pockets, and other details which had been given top rating in the questionnaires answered by the women.

The wide variety of use expected of the house dress was rather surprising. Ninety-three per cent wanted a garment which would be suitable for shopping and informal meetings such as P.T.A., choir practice, extension, and entertaining friends. Fewer than 50 per cent used house dresses for gardening. Nearly twice as many preferred an attractive style to one which was less attractive but easier to launder. No attempt was made to design a garment that might be ironed in a minimum time.

A lower, open neckline was preferred by virtually all the women, and a tailored or simple collar was first choice. Three types of front openings were favored almost equally. Twenty-seven per cent chose a slip-over garment with side zipper, 26 per cent neck-to-hemline opening, 26 per cent neck-to-waistline with side zipper, and 20 per cent chose neck to 8" below waistline.

Sixty per cent preferred the short, elbow-length sleeves, 36 per cent desired a cap sleeve, and only 2 per cent said they would be willing to wear sleeveless dresses.

Gored skirts were the choice of 87 per cent of the women. Patch pockets were preferred by 70 per cent and they wished them placed high on the skirt rather than low.

Fifty-seven per cent preferred a separate belt, and chose to have it fastened by a buckle, rather than knots or bows.

Fastenings were selected in this order: (1) zippers, (2) buttons, (3) grippers. The women made buttonholes on the machine attachment whenever possible.

The popularity of sewing with Oregon women is indicated by the fact that 78 per cent of those answering make all or at least some of their house dresses, with a range of from 4 to 10 made at home each year.

The vertical line was stressed throughout all the designs to meet the needs of the mature figure. However, a warning must be given. With either a well-chosen pattern or a good ready-to-wear design, a garment of the wrong size or one poorly fitted will not give satisfactory wear. Sometimes the wearer fails to distinguish between poor fit and poor design. Both must be correct for complete satisfaction in the garment.
**Fabric Selection**

Dark prints show soil less than light ones. They also look more dressy, but in the low-price range they often fade in sunlight, in washing, or from perspiration. Watch for labels indicating “color fastness” when purchasing. “Vat dyed” colors will show less fading. Usually gingham and chambray which are yarn dyed are dependable. A black gingham used in the project showed no sign of fading even after 80 hours in the Fade-O-Meter.

Care should be used in selecting small, well-spaced designs, as shown in the three fabrics pictured on the left of the page. In these, the motifs are harmonious in shape and size, giving unity to the design. No part of the pattern jumps out to claim too much attention when seen from a distance. When selecting gingham choose plaids which are small in scale, leaving the large plaids for tall, slender figures.

Very large, flowery prints tend to increase the apparent size of the mature, well-developed figure. Many of them give a spotty, unflattering effect as does this one, shown at the lower right.
SLEEVES FOR WORK DRESSES

Construction Standards

1. Size of stitch
   Sixteen to twenty stitches per inch.

2. Seams
   a. Side seams are 1" wide, pressed open, edges pinked and a line of machine stitching added just back of pinking.
   b. Gore seams are $\frac{3}{8}$" wide, edges stitched together $\frac{1}{4}$" from the seam line, then pinked. Back gore seams are pressed toward center back, and front seams toward center front. This is standard direction for pressing darts also.
   c. Waistline seams are $\frac{5}{8}$" wide, edges stitched together and pinked. They are then pressed toward the plain section, usually toward the skirt in these dresses.

3. Facings
   Edges were turned under and stitched $\frac{1}{8}$" from turn, slip stitched or lock stitched into position, fastened to tucks, darts, or seams wherever possible, but not to the body of the dress where it would show plainly.

4. Necklines
   Shaped facings were used in dresses without collars. A true bias was used to attach collars to necklines. The procedure for applying is the same for either collar or facing.
   a. Place facing or binding on the outside of the garment. Machine stitch along the neckline.
   b. Trim seam, slash inside curve at intervals, turn to inside.
   c. Press and slip stitch into position.

5. Hems
   Skirt hems were 2" to 21/2" in width. Sleeve and peplum hems were 1". Turn under edge, machine stitch $\frac{1}{8}$" from fold, slip stitch or lock stitch into position.

6. Fastenings
   a. Buttons were reinforced by inserting a $\frac{1}{4}$" square of fabric, double thickness between the garment and the facing, before sewing on the button.
   b. Buttonholes were made with the machine attachment, stitching over them twice.
   c. Snap fasteners marked “Gripper Brand” were used because no special tool is required to attach them. Instructions on the card were followed and found satisfactory. In using them on the sleeve, we attach them to the underside of the top hem before stitching it in position. Handled in this way, they are not seen on the outside of the garment.
7. Belts

For the belts, fabric was cut 4" wide and the length of the waist measurement plus 6". Mending tape trimmed to 1" or less in width was used to give firmness to the belt. The procedure for construction is as follows:

a. Place fabric right side down on ironing board.
b. Shape ends of tape as desired for belt end. Place tape (gum side down) 1" from one side and press tape into position.
c. Fold and press narrower side over tape, then fold under wide side and press with edges matching. This makes three thicknesses of fabric on back of tape.
d. Press fabric to shape point and trim excess folds from inside.
e. Pin edges in position and baste only if necessary. Stitch belt from right side about 4" from edge. Attach buckle.

8. Buckles

Fabric-covered buckles were made at a hemstitching shop. They washed satisfactorily and did not rust. At the end of the wearing test, the fabric was worn on the corners of three of the buckles, but these could be replaced easily if needed.

9. Pads

Six layers of cotton wadding were cut in three graduated sizes for the pads. A shows the size and shape of the layers of cotton wadding.

These layers were stitched together in the direction shown in B.

A 6" circle of fabric was used for covering. It was folded, placing the bias on the straight edge of the pad. Cut edges were folded to the inside and stitched. The covered pad was then stitched as shown in C.

Pads were attached by sewing two snaps at the shoulder seam of the garment, matching their position on the pad.

These have been very easy to launder and very satisfactory in the house dresses.
The Overlapped Sleeve

A top-lapped sleeve which spreads when reaching provides freedom of movement in the garment. Gathers across the cap give additional ease. A panel with pleat 2" deep on each side unbuttons at neck and waistline to give enough fullness for the dress to slip on over the head, thus eliminating the need for a placket. A short belt holds the panel in place at the waist and is repeated in the trimming detail at the neckline.

The vertical panel accented by bias trim creates an illusion of greater height for the wearer. A deep, square neckline which gives length, a collar which is narrow and long in front but disappears at the center back, flatters a short neck. The gathered sleeve adds width to the narrow shoulders, thus minimizing hips.
The Bias Gusset with Flange Pleat

A combination of three features provides freedom for action in this dress. The flange pleats at front and back armseve seams give extra fulness to the blouse. The 4" bias section set in at the underarm and sleeve stretches to give freedom of arm movement. The decorative slash in the lower sleeve edge gives still more freedom.

Slenderizing details are: the open V neckline; the diagonal following through to the waistline and continuing in a deep pleat down the side front. The line is emphasized further by contrasting buttons. To avoid being conspicuous the pocket was cut to match exactly the plaids on the skirt.
Pleated or Snap-Up Sleeve

Two different sleeves are used for comparison in this dress. One has a 2" box pleat located at the top of the shoulder. In the other sleeve front and back are cut separately, the edges hemmed and overlapped from the shoulder seam to the bottom. It is fastened with three grippers. Buttons or snaps also might have been used. Either sleeve is a good answer for freedom of motion. The choice depends on the individual.

Narrow shoulders were widened by the collar lines. To diminish the very full bust, a vestee of harmonizing plain fabric was used. To give additional ease there is a 1½" box pleat down the center back of the blouse. The four-gore skirt has a deep pleat at center front.
Combination Sleeve and Yoke
with Kite-Shaped Gusset

A more comfortable work dress often is found when the sleeve and yoke are cut in one, eliminating the set-in sleeves. Wearing tests indicated it was desirable to cut the grain as shown in sleeve B. This placed the strain on the bias when in the position of "arms forward." Preliminary studies showed this motion was repeated about 5 times as often as other motions when doing household tasks. Sleeve A placed the strain on the straight grain in this position and caused the fabric to pull away at the gusset corner during the wearing tests. The gusset is a large, kite-shaped one.

A slenderizing effect was provided by combination of V neckline and buttoned front opening which continued to hemline. A single pleat at front edge of the pocket gave the 6-gore skirt desirable fullness.
The Widened Bias Gusset

In this dress the bias underarm gusset idea was used again. It is cut very wide under the arm at the waistline and shaped to form a panel at the blouse front and back, curving outward into the kimono sleeve. There is no underarm seam. This wide bias allowed the wearer to reach above the head with almost no feeling of strain at the waistline. It proved to be a very comfortable garment.

The U neckline adds length to the face and neck area. This was emphasized by using white pique collars and cuffs on a polka dot print.

The 6-gore skirt gave a slenderizing detail and continued the panel lines from the blouse.
Two-Piece Dress with Long Bias Gusset

This dress was made from a commercial pattern; the aim was to demonstrate how easily the long bias gusset could be adapted to any pattern. Though this is a kimono sleeve, the procedure was the same as for the set-in sleeve, as shown on page 8. The gusset for this garment stopped at the waistline as shown in A, and also was narrowed to 3" width at the waistline. The gusset may extend into the peplum as shown in B, widening to 4" again over the hipline. C shows the shape of the gusset when lengthening the sleeves below the elbow. It is the same as for the man's shirt with long sleeves.

Instead of the free hanging pocket shown in the pattern, a single pocket was stitched in place on the peplum. The stripes were set to correspond to the bias of the underarm gusset.
Back Wrap-Around with Bias Gusset

For this dress a commercial pattern was used with back wrap-around style and set-in sleeves. For comparison in the amount of stretch allowed, a long gusset was used on one side, and a short one on the other. The wearer found the long one preferable and a great improvement over a similar garment made without the gusset.

This proved very satisfactory as a maternity dress; the back opening provided easy adjustment. The soft fullness at the skirt front was concealing, and may be handled as pleats or gathers.