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# Garment Construction

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Extension Bulletin 155—"Garment Construction"

**An adaptation of Extension Bulletin 77, "Stitches, Seams, and Garment Finishes," completely rewritten to include fitting and other problems of garment making.**

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# Garment Construction

THE first step in garment making begins with collecting the necessary tools and equipment for efficient, good quality work, and selecting a becoming and appropriate pattern and fabric.

Even though patterns are made to standard measurements and bought according to size, they should be carefully checked and if necessary altered to fit individual proportion differences. Some fabrics are ready to work with just as they come from the store; others require some preparation such as straightening, pressing, shrinking, and sponging, all of which is part of the getting ready process.

Accuracy is most important, not only in the preliminary steps, but in everything that follows, especially in placing the pattern on the fabric, cutting out the dress, and transferring the pattern markings to the fabric. But if all this is carefully done, pinning together and basting the parts of the garment should be comparatively simple.

After the garment is assembled and the edges stayed, it is ready to try on. Most garments need adjusting or fitting to take care of posture irregularities, for a garment that does not fit well is uncomfortable, unbecoming, and generally undesirable.

Now the garment is ready for the finishing. There is no one rule which recommends one particular seam or stitch as better for all purposes than another. Such factors as style, shape, value of garment, fabric used, and skill of workman will all need to be considered. Good workmanship is important. There is nothing more important to the development of high standards of workmanship than the opportunity to observe beautiful work and the ability to recognize and appreciate it. From year to year little or no change is made in the method of making the different stitches and processes, but their best application and use varies considerably.

A good way to keep informed about these changing practices is to keep in touch with what is being done by experts. This may be done by observing accepted practices of good dressmakers and tailors, and examining high class ready-to-wear garments in the better shops and stores. Professional standards may be obtained in garments made at home by skillfully applying these observations, allowing for differences in style, fabric, available equipment, and effect desired.

When finished, a garment should have a finished look. All pins and bastings should be removed, since these are only temporary steps used in the making. No knots should show on the right side. Thread ends should be fastened in the recommended way and snipped off neatly. Permanent stitches and finishes should be neat, correctly made, and appropriate, and the garment should be clean and well pressed.

## Supplies and Equipment for Efficient Sewing

Before he starts to work, a good workman collects the necessary tools and equipment and learns how to use and care for them. Some of the tools needed for sewing are:

*Needles.* — A good sewing needle is slender, so that it will push through the material easily. A long eye is easily and quickly threaded. Numbers 7 to 9 are a good size for general hand sewing. No. 10 is preferred for fine sewing. Separate packages or a package of assorted sizes may be bought.

*Emery Bag.* — An emery bag is used to remove rust and sticky deposits from needles. Pust the needle through the emery but do not leave it in the bag or it will rust again.

*Thread.* — Cotton thread is numbered by figures, as 60 or 80; the higher the number, the finer the thread. Silk thread size is indicated by letter, as A or B, the latter being the coarser. In selecting the size of thread for a particular use, match as closely as possible the size of yarns in warp and filling of fabric. For colored fabric, silk or mercerized sewing cotton is usually used. Select thread of the same color but slightly darker than the fabric, as it works up lighter.

*Pins.* — Sharp pointed slender pins, such as steel dressmaker pins, are easily inserted in fabric and leave little trace when removed. Blunt or rough points mar fabrics. Pins should be kept in a box or a pincushion that has been stuffed with hair or scraps of wool.

*Thimble.* — Everyone should learn to use a thimble. It protects the finger and permits greater speed in sewing. A thimble should fit the middle finger so that the tip of the finger just touches the top of the thimble. It should be light weight and smooth.

*Tape Measure.* — For accuracy and convenience, a tape measure should be made of firm material with metal tips on each end and plainly marked on both sides, with the numbering beginning at opposite ends.

*Measuring Gage.* — Light weight cardboard may be notched to make a measuring gage of the desired length. With such a gage, the accurate measurement of short distances is more easily and quickly done.

*Rules.* — A foot rule or yardstick is needed for measuring skirt lengths and marking long lines.

*Shears.* — Cutting shears 7 inches or more in length, with sharp, smooth blades, are essential to straight even cutting. They should be of a size that best fits the hand of the worker and the type of material. They should be used only for dressmaking.

*Scissors.* — Small scissors are handy for clipping and cutting threads and for hand work.

*Pinking Machine or Shears.* — When much sewing is being done, it may pay to own a pinking device. Pinked edges can be cut more quickly and accurately with one of these than with ordinary scissors.

*Tailor's Chalk.* — This may be used for marking. It should be tried out on a sample of material to see if it will come off easily before it is used on the fabric.

*Notebook and Pencil.* — A notebook is convenient in recording points of information, as measurements or directions. This, along with a pencil, can be kept in the sewing container.

*Work Container.* — A box, basket, or bag may be used to keep essential small equipment together. This needs to be large enough to hold the equipment, small enough to be carried around to the various places where one works, and

strong. A second box, large enough to hold the garment without crowding or mussing, should also be provided.

*Table.* — The cutting table should be large enough to hold the full length of the material. The entire pattern can then be laid on the fabric and every part of the garment provided for before any of the cutting is done. A smaller table may be used for sewing. This table should be of a height that is comfortable for a person to work on when seated.

*Pressing Equipment.* — Since the success of the finished garment so often depends on pressing all the way along the line, an iron in good condition, a clean, well padded ironing board, and clean press cloths of different sizes and weights (see page 11) should be easily available.

*Mirror.* — A large, clear mirror helps in judging becomingness and fit of garment. It should be hung so light shines on the person rather than on the mirror. A triplicate mirror, or a large single mirror and small hand mirror, enables one to see her own dress from all angles.

*Sewing Machine.* — While all sewing machines are primarily the same, each make has some differences peculiar to it. For this reason, everyone who uses a sewing machine should know the parts of that machine, what these parts do, and their proper care. She should read the book of direction that accompanies the machine, or have someone explain the workings of the machine to her. Bulletin 140, "Your Sewing Machine: Its Care and Adjustment," may be obtained from the county extension agent in your county.

When using a sewing machine, the worker should:

1. Sit well back in the chair, keeping the back erect but leaning slightly forward.
2. Place both feet on the treadle of the machine.
3. Place the material to be stitched in such a way that the bulk will be on the table of the machine at the left of the head, rather than crowded under the arm of the machine.
4. Stitch straight and carefully.
5. Raise needle and take-up lever when work is ready to be removed, raise presser foot and work toward the back or away from the worker.
6. Cut thread, using cutting blade on machine or scissors.

## How to Select the Pattern and Fabric

A pattern of such design as will accent the wearer's best features should be selected. This involves an understanding of line effects. Lines are interesting,

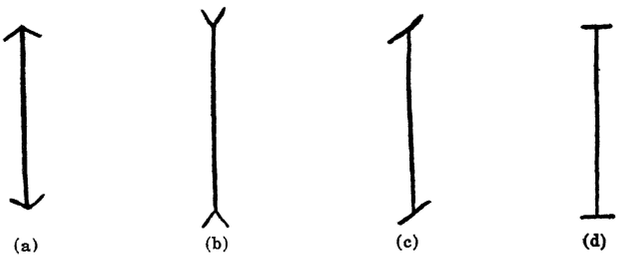



**Fig. 1.—The effect of line direction.**

and even more so are the effects that can be produced by them. For instance, the apparent length of lines *a*, *b*, *c*, *d*, (Fig. 1) are changed by the addition of lines of different direction at each end. In the same way lines of different direction change the appearance of a garment. A person who is tall would select the skirt design shown in Fig. 2*a*, rather than the design *b*, because lines that take a downward turn tend to decrease apparent height.

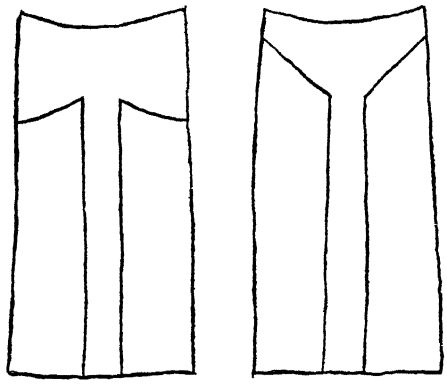



Fig. 2.—Line direction affects the apearance of a garment.

The skirt shown in Fig. 2 (*b*) is better for a shorter person because the lines carry the eye upward, thus making the figure appear taller.

Not only are lines within the parts of the dress important, but the outline of the garment should also be considered. Straight plaits in the body of a dress usually have a slenderizing effect, while gathers add bulk and thickness. Long, low flares are slenderizing, too, while a broad flare that starts at the waist line may have just the opposite effect. Ruffles, full sleeves, and wide loose capes usually add an appearance of width to the silhouette.

A design that follows the body outline, especially at the underarm, is more slenderizing in effect than one that calls for fullness under the arm and at the side of the skirt. Blouses that call for blousing and gathered fullness, as well as deep, full cut kimono sleeves, add more bulk above the waist line than a fitted blouse with set-in sleeves.

Consider all the lines of a design, their direction and position, as well as the spaces and their relative sizes and shapes before selecting a pattern, for the becomingness of a design depends on how these lines and spaces affect the appearance of the wearer.

Suitability for the occasion is still another point to be considered when selecting a pattern. A typical sports dress is out of place if worn to an afternoon tea, and likewise an afternoon dress is inappropriate for school or street wear. The pattern selected should be suited to the type of occasions to which the finished garment will be worn most often.

Of course, fabric and pattern are closely related. When selecting a pattern the type of fabric to be used must be kept in mind. Will it lend itself better to flares and circular effects or to plaits and tucks? Is the material rough or smooth, coarse or fine, soft or harsh; or does it have any other such quality as will influences the type of design for which it is best suited and the becomingness of the garment?

When selecting a fabric, color and design are both important. While the color of material is influenced by the current fashion, nevertheless the most becoming color, regardless of the prevailing style, should be used. Each individual should study her own coloring and decide on the colors that are best for her.

Material may be plain or it may have a figure or design. If it has a design, the background and design should be related so as to produce a pleasing, all-over pattern. If any one part of the design, or color within the design, stands out, a "spotty" effect is produced. In selecting a figured material for a specific use, the size and kind of figure selected will depend on the size of the individual who is to wear it and the design of the garment. Figured fabrics are usually made into simple designs, as much cutting and seaming often spoils the effects of the print.

## Purchasing the Pattern

Patterns may be purchased according to age or size. However, since people of the same age vary so much in their height and weight, it is generally considered more accurate to buy patterns according to size. Certain body measurements are necessary to determine what size pattern is needed, and to help check the size and proportions of the pattern before it is used.

### *Taking Measurements*

All measurements should be "easy," not snug or tight. Clothes fit the body allowing for ease and freedom in motion. A person cannot take her own measurements accurately. However, after measurements have once been taken and recorded they may be used repeatedly until the individual changes in size or proportion.

The most important measurements for a dress are:

*Bust.* — Place tape over the fullest part of the bust, well up under the arms, and straight across the back. The person doing the measuring should stand back of the person being measured.

*Waist.* — Place tape around the waist. Slip it back and forth until it adjusts itself to the smallest part.

*Hip.* — Place tape around the fullest part of the hips parallel to the floor.

*Waist, Front and Back.* — Take each measurement separately. Place tape on top of shoulder at the base of the neck, allowing it to fall in a line perpendicular to the floor. Read lengths at center of the tape around the waist.

*Skirt, Front and Back.* — Take each measurement separately. Place tape in center front and back respectively. At these points take the measurements from the center of tape round the waist. Hold tape perpendicular to the floor. To determine length of skirt subtract from the total length the distance from the floor to the length of completed garment, less enough for width of hem.

*Sleeve.* — 1. Outside length. — With arm slightly bent, measure from top of arm at the end of the shoulder down outside of arm over bent elbow to wrist bone in line with the little finger.

2. Inside length. — With arm straight and held slightly away from body, measure from underarm to center of under part of wrist at base of thumb.

3. Arm girth. — With arm in relaxed position place tape around arm and parallel to the floor, measure around the fullest part of upper arm.

The bust measure is of special importance in buying the pattern, since size of pattern is determined by this measurement. If bust measurement is 34 inches

then size 34 pattern should be selected. If the bust measurement is 35 inches a size 34 or 36 pattern may be bought, depending on the following: (a) whether or not a tight fitting garment is desired; (b) whether the shoulders are broad or narrow; (c) whether the hip is broad or narrow; and (d) the ease with which the pattern may be made larger or smaller, longer or shorter.

Patterns are ordered by the number of the design. They should be checked before leaving the counter to make certain that both pattern and size are correct.

## Understanding the Pattern

There is a great deal of information to be found on the pattern envelope and on guide sheet inside envelope. This information generally includes:

1. A chart showing the different pieces of the pattern, along with a suggested plan for laying the pattern on the material.

2. A chart of measurements, including bust, waist, and entire length for the design.

3. Directions for altering the pattern. (General directions for altering will be found on page 9.)

4. A table showing the amount of material necessary for different sizes. Usually the first column tells the size; the other columns give amount of material of different widths needed. By reading across the table one can find the amount of material with or without nap or design that will be required for the given size. If the person has proportions varying from the average it would be well to alter the pattern and determine the exact amount of material needed before buying the fabric.

5. General instructions for cutting and constructing the garment. The name or number is perforated or printed on each part of the pattern. To help in assembling the garment easily and quickly, additional markings or symbols are used. These may be words, perforations, arrows, notches, crosses, circles, broken lines, or continuous lines, printed or perforated on the pattern. Since these symbols vary with the different commercial patterns, directions for their use will need to be studied and followed for each pattern. They help with: (a) laying the pattern on the material; (b) placing parts of pattern on the fold; (c) placing fullness; (d) joining the different parts together; (e) knowing the depth of seams, plaits, and tucks; and (f) placing different trims and finishes.

## Testing or Checking the Pattern

Even though patterns for garments are bought by size, it is necessary to check the parts of the pattern if the desired effect is to be obtained in the finished garment. This checking or testing the pattern may be done in several different ways.

1. *Individual Measurements.* — Pin all of the front and all of the back of pattern together so it will be in two large pieces. Unless the pattern is different on each side of the front or the back, only half of these parts will be given. Measure from the center front to the seam allowance of the underarm seam at the bust line. Double this to obtain the entire measurement of the front.

Measure the back in the same way and in the same position. Add this to the measurement of the front to determine the entire measurement of the pattern at the bustline. Check with the bust measure. There should be about four inches "ease" in the pattern. In the same way measure other parts of the pattern and check with individual measurements. There should be about 3 inches "ease" at the hip line and 1½ inches ease at the girth of upper arm.

2. *Pinning Pattern Together.* — Pin the pattern together the same as for testing for individual measurement, but in addition pin the shoulder and underarm seams together on the seam line. Try this on, taking care that the center front and back of the pattern is exactly at the center front and back of the figure. Check as to length, width, and position of seams.

3. *Foundation Pattern.* — A garment of inexpensive material may be made and fitted; the seams, tucks, and darts carefully marked, and then the garment ripped apart to form a pattern. By placing the center front or back of the pattern to be checked on the center front or back of the foundation pattern, it is easy to tell whether or not the pattern is correct or needs alteration. This is most commonly used for adults, and those having irregular figures.

## Pattern Alteration

Patterns that do not fit well need to be altered. This altering is done by changing the length or the width, or perhaps a little of each. The normal waistline marked on the pattern must be in position with the normal waistline of the individual; the position of the elbow of the sleeve in position with the elbow of the arm; and the direction of the line in the design of the pattern in proper position for the figure. After these have been determined it will be easy to know whether a change should be made according to length or width.

If the pattern is too short, it should be cut on a line perpendicular to the center front or back, and the sections of the pattern spread so the parts will be parallel to each other and far enough apart to allow for desired increase in length (Fig. 3). Pin or baste the parts of the pattern in position.

If the pattern is too long, place it on a flat surface and fold a tuck of the desired width perpendicular to the center front

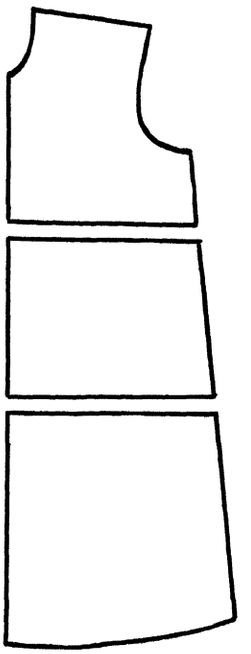


Fig. 3.—Method of lengthening full length dress pattern.

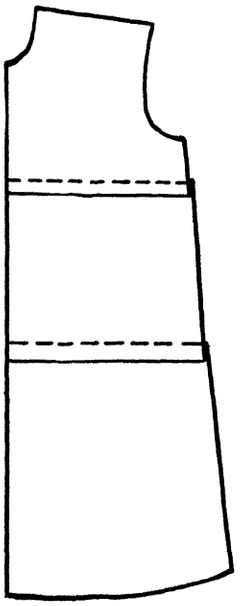


Fig. 4.—Method of shortening dress pattern. Tucks are placed above and below regular waistline.

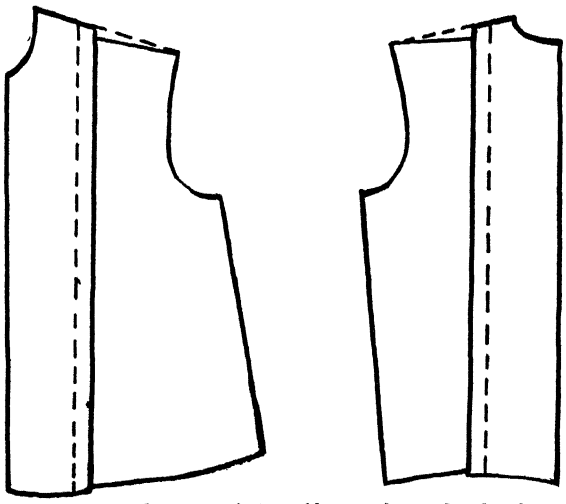


Fig. 5.—If pattern is too wide, a tuck may be placed front and back as indicated.

or back and straight across the pattern where it will least change the outline of the pattern (Fig. 4).

If the pattern is too wide, lay a tuck of desired width, parallel to the center front or back, at points where it will least affect the outline (Fig. 5). If this alteration is made in the waist, the position of the fold, whether it starts from the shoulder or neckline, will be determined by the width of the shoulder and the size of the neck.

If the shoulder is quite narrow, the tuck would probably start about the center of the shoulder seam; on the other hand, if the neck is very small, the tuck would probably have its starting place at the neckline.

If the pattern is too narrow, it may be enlarged by slashing and spreading. Make the slashes parallel to the center front or back, and in the approximate position as described for making pattern smaller (Fig. 6).

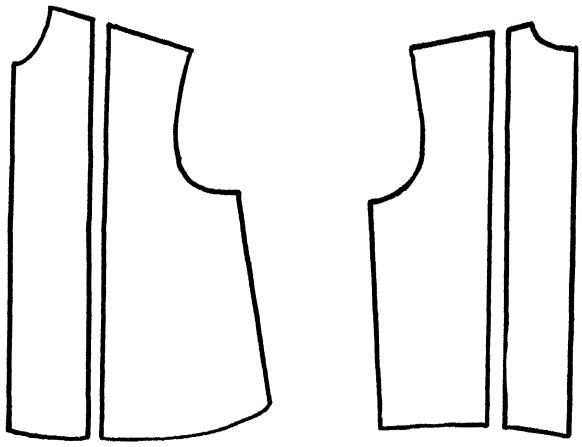


Fig. 6.—To make waist pattern wider, cut as shown and fasten pattern together with a strip of paper.

## Judging Effect of Paper Pattern

After the pattern has been altered, it should again be pinned together and tried on, that the effect may be judged. Look into the mirror and note the fit through the shoulders, hips, across and along the sleeves. Is it loose enough to allow for moving, walking, and sitting down with comfort? Are the trimming lines, fullness (such as plaits), and belt placed to give pleasing proportions? Is the neck line and outer edge of collar becoming? Try different skirt lengths and decide which one is best. All of this takes time, but it is time well spent. Changes are more easily made now than after the material has been cut and the garment sewed together.

### *General Pressing Suggestions*

If the material is wrinkled or folded crooked, or if it is desirable to remove fold marking, press the material before cutting garment out. Otherwise, pressing is done as the garment is being made to flatten tucks, darts, seams, etc., and after it has been completed as the final touch to the finished garment.

Before any pressing is done, experiment to find the probable results. Try pressing small pieces of the material to see effects of various temperatures of the iron, with and without moisture. Moisture may be applied by dampening the material slightly with a small cloth, or by a damp or wet cloth laid between two thicknesses of dry cloth. Keep the iron moving. If it stands in one position long it will mark the material. Press with the warp or filling yarns of material, for pressing on the bias is apt to pull the material out of shape.

### *Method of Pressing Various Materials*

*Cotton.*—Most cotton materials should be dampened slightly and pressed with a hot iron; pressing on the right side produces luster, while pressing on the wrong side produces a dull appearance.

*Linen.*—Same as cotton.

*Silk.*—Most wash silks should be pressed while damp. They may be pressed on the wrong side with a warm (not hot) iron, or they may be covered with a thin dry press cloth and pressed on the right side.

For pressing plaits or removing creases or wrinkles, cover the wrong side of the silk with double tissue paper. On this place a damp (not wet) cloth and pass heated iron lightly over the damp cloth. This will allow steaming without water spotting. After steaming, press lightly until press cloth is nearly dry. Remove cloth tissue and iron lightly and rapidly over wrong side of silk. Experimenting on a sample always leads to better results.

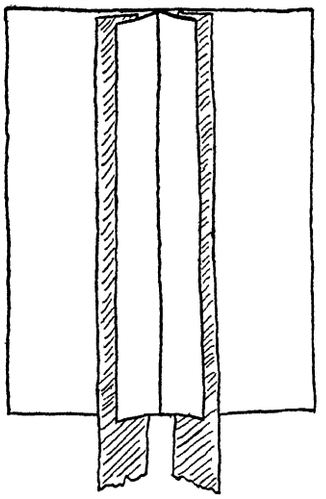


Fig. 7.—Pressing wool seams, using strips of paper to prevent marring.

*Rayon.*—Handle the same as silk.

*Wool.*—Wool may be pressed from either the right or wrong side. When pressing from the wrong side dampen wool by sponging with damp cloth or sponge. Cover the material with a dry cloth and press with a warm iron. Work slowly, pressing back and forth; do not let the iron rest long in one spot. Press until dry.

For plaits, creases, and wrinkles use a pressing pad made of a piece of wool and a piece of cotton cloth basted together. Place the wood side of the pad against the part to be pressed. Dampen the cotton side and press over it directly, or the damp cloth may be covered with a dry cotton cloth and the press-

ing done on the dry cloth. The wool absorbs and distributes the moisture evenly, giving a soft dull finish to the fabric.

In pressing wool seams, work on the wrong side. Open seams, placing a strip of paper under the edge on each side to prevent the ridge of the seam from showing on the right side. Proceed as previously described for pressing wool (Fig. 7).

### *Shrinking the Material*

*Cotton, Linen, Rayon.*—Some people prefer to enjoy the attractive finish of a new fabric by making it up without shrinking it. This involves allowing for adjustments after the garment is washed the first time. Some materials are shrunk before offered for sale, but seldom are these completely shrunk.

If it is desirable to shrink a fabric before using it, fold it, put it in a basin or tub and completely cover with warm water. If the color is apt to run, use cold water. The container should be large enough to accomodate the material without crowding. Allow to soak until thoroughly wet through. Remove and let the water drip out without wringing it. Either hang on line, over a rod, or lay it flat on a clean surface, taking care that there are no creases, and the material is straight. Some fabrics will not need ironing, so may be allowed to dry thoroughly; others will need to be ironed. Be sure to iron the material straight with the warp yarns, and keep selvages together. Do not iron a crease in the center.

*Wool.*—Many woolen materials are pre-shrunk by the manufacturer. However, it is usually desirable to shrink them again. Tailors do this very reasonably, or it may be done at home by rolling the fabric between wet sheets and allowing to stand until wool is damp. Remove and press on wrong side, using a dry press cloth to cover wool, and a warm iron. Press until smooth and dry. Place over a rod until ready to use to prevent wrinkling.

To remove fullness from top of sleeve or hem, adjust outer edge to desired size, making two rows of gathering stitches, one on each side of seam line. Dampen the fullness, cover with a dry cloth, and press until the extra material has been shrunk to desired size. Avoid pressing plaits in sleeve; this may occur if the gathering stitches are too large.

### *Grain of Material*

Because much of the success of the finished dress depends on the "hang" of the material, it is necessary to place the pattern carefully in relation to the yarns in the fabric. These are known as the lengthwise or warp and crosswise or filling yarns, and are referred to as grain of material. Unless the pattern is placed with proper reference to the grain, the finished garment will not be well balanced. If the pattern calls for the center front of the dress to be placed on the straight lengthwise fold and the material is carelessly folded, the center front of the garment will always twist to one side. To avoid this straighten the material first. If the material has been torn from the bolt the ends will be straight; if they are not draight draw a thread and cut off the uneven edge. Fold the material lengthwise and lay it flat on the table, with the even ends in a line perpendicular to the fold. If there are no diagonal wrinkles all the yarns

of the material will be at right angles to each other. If diagonal wrinkles are formed, then the material has been pressed crooked. To correct this pull the torn ends in opposite directions until the material is straightened and the yarns have been returned to their correct position.

Some designs are stamped crooked on the material. Special consideration must be given to this when buying a plaid or checked fabric, for this fault obviously affects the finished garment, making it impossible to place correctly both the pattern and the grain of fabric.

### *Types of Designs*

There are two general types of designs; a one-way, or up-and-down pattern; and a two-way, or neither up nor down design. If the fabric has an "up-and-down," all "tops" to part of pattern must be placed in one direction; the pattern will not cut out as economically, but it is better to use more material than to have the design running one direction in the front of dress and another direction in the back. Before laying the pattern, study the details of the fabric, noting the direction of the design, nap, or pile, and avoid placing some parts in opposite directions.

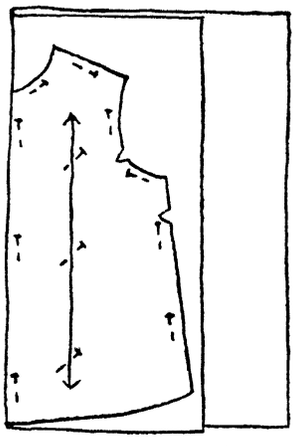


Fig. 8.—Folding material and pinning pattern in place.

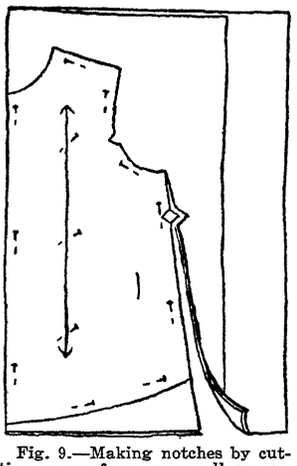


Fig. 9.—Making notches by cutting away from seam allowance.

### *Placing the Pattern on the Material*

If no alterations have been made, and if the amount and width of material corresponds to that suggested by the chart, the pattern can be placed on the material according to the diagram which illustrates the view of the garment selected. If alteration has been made, it is not always possible to follow the pattern guide. In such case, a different layout should be planned, carefully following all directions. Place the large pieces first. If the wide parts of the pattern are to be cut double and are not as wide as the folded material, refold, measuring from the selvage of one edge of the fabric to the selvage of the other edge in several places. If these measurements are the same, the new fold will be straight, and there will be one large piece of material left instead of two smaller ones. This can be used to much better advantage for the smaller parts of the pattern (Fig. 8).

It is very important to check all parts of the pattern as to grain of material called for. To do this, place the pattern on the material and measure from each end of the grain, marking on the pattern to the selvage of the fabric. This measurement should be the same the entire length of the mark. Too much emphasis cannot be placed on this point, if the garment is to look well.

When the entire layout has been planned and the pattern properly placed, pin each part separately. Pin on the grain line first, then smooth out the pattern and place pins in a line parallel to the edge around the pattern so it will be held securely in place (Fig. 8).

## Cutting and Marking

Before cutting out a garment note carefully the kind and location of symbols that are to be marked on the fabric. Materials may be marked as follows: basting line, for marking center front and back or any other necessary grain lines, and tailors' tacks for marking notches, plaits, tucks, darts, and seam lines. Wool materials may be marked by either of these methods, or by the use of a chalk board and tracing wheel. In place of marking notches with tailors' tacks, they may be marked while cutting out the pattern by cutting away from the seam allowance line instead of cutting into it. (Fig. 9.) If notches are cut into the seam allowance, they may weaken the seam. Tailor's chalk is also used (p. 4). Marking of symbols may be done before or after the garment has been cut out.

When cutting out a garment use sharp shears (see page 4). Place the left hand on the pattern at the point of the shears to prevent any slipping of the material or pattern. Cut an even edge with long straight strokes of the shears. Follow outline of pattern carefully, so that each piece will be the exact size and shape of the pattern.

## Assembling the Parts of the Garment

After removing the pattern, and before handling the individual pieces, it is well to protect from stretching curved and bias edges such as the neckline and armscye. This may be done by basting or machine stitching around them close to the edge.

Next the flat work should be done. This includes making of plaits, tucks, darts and gathers. Decide on type of seam best suited to each part (see page 27). Match the notches and pin edges together, placing the pins in lines perpendicular to the edge, and baste. Join the parts of the waist front and the parts of skirt front; then join the waist and skirt fronts together. Proceed in the same way for joining the parts of the back. If the correct fit of the garment is assured these parts may be machine stitched; otherwise it is better to wait until after the first fitting before permanently stitching.

The front and back pieces may be joined by pinning and basting the shoulder and underarm seams together; likewise the sleeve seam should be made. Make two rows of running stitches, one on each side of the seam line, around the top of the sleeve from notch to notch. Baste together any other parts such as collar, cuffs, belt, tie, etc., and proceed with the first fitting of the garment. Slight variation in the above procedure will need to be made for different garments and different designs.

## Fitting the Garment

It is quite difficult for a person to fit a garment on herself. A helper is needed. If fitting can be done before a long mirror, the one being fitted can see the effect of the changes, and make suggestions about her preferences.

Put the garment on right side out and look it over carefully before making any changes. If parts of the garment need to be fitted out transfer the location of notches and other marks, that these guides may be kept.

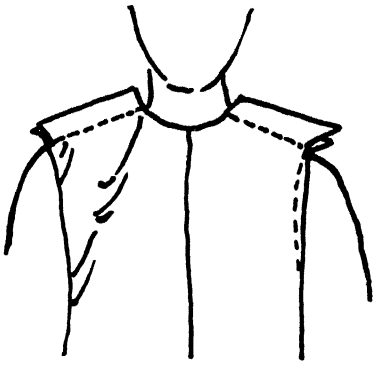


Fig. 10.—Left side shows wrinkles; on right side these are smoothed out by making seam deeper at shoulder.

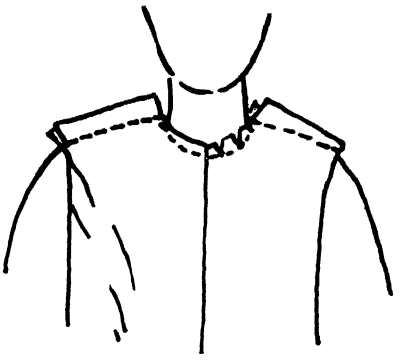


Fig. 11.—On left, wrinkles are caused by seam being too tight at shoulder; seam should taper, as at right.

Most garments are cut with the lengthwise grain of the fabric running straight down the center front and back. If the garment fits, the crosswise grain will be straight across the chest, bust, and hips, except in the case of flares and circular effects. The garment should be easy-fitting over bust, hips, and across shoulders. Check length of sleeve, shoulder seam, and entire garment for comfort and becomingness, and note the location of decoration.

A dress should fit so that it resembles the proportions of the wearer and reproduces the desired style. Fit the right side first. If the figure is similar in size and proportions on both sides only half of the dress needs to be fitted; otherwise both sides of the garment should be adjusted.

The shoulder seam should be on top of the shoulder in a straight line from base of neck to top of sleeve. It may vary toward the back or front, depending on the current style. Shoulder alterations will influence the chest, armscye, and

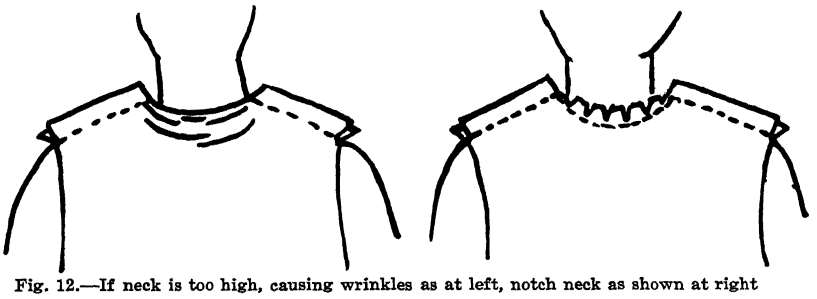


Fig. 12.—If neck is too high, causing wrinkles as at left, notch neck as shown at right

neck fit, and the grain of fabric across bust, shoulders, and back of garment. To adjust garment for the sloping shouldered type, and remove the wrinkles below the shoulder seam, take the seam in deeper at the outer edge and taper it toward the neck (Fig. 10). For the square-shouldered type take the seam deeper near the neck and taper it toward the armscye. (Fig. 11).

If the neck is too high in front, causing wrinkles, clip the neck line until the "draw" is removed (Fig. 12). If neck is too low adjust it by taking the shoulder seam deeper.

Before making the final check on the shoulder seam notice the width of body both front and back. If the individual is flat there will be wrinkles in front. To remove these, rip the shoulder seam, smooth out the front, and let it extend beyond the back, at the armscye; then baste the shoulder seam again and mark a new armscye. (See Fig. 13, right side.)

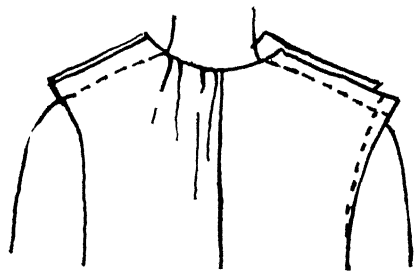


Fig. 13.—To remove wrinkles in front, as shown on left, open shoulder seam and arrange dress as shown on right.

Diagonal wrinkles from the shoulder blade toward the underarm seam are caused by round shoulders. To remedy, rip the shoulder seam and lower the back until the crosswise grain at the upper back is parallel to the floor. By so doing the shoulder seam on the back will be more shallow than on the front (Fig. 14).

For the figure that is small above the waist line there may be too much fullness under the arm. Beginning at the top of the underarm seam, fit out the extra width, tapering it to meet the underarm seam at waistline or slightly below.

There is still another main point to check. That is the lower edge of the skirt at center front, back, and side seams. If the center front swings out, as in Fig. 15, the crosswise grain is not parallel to the floor. This may be corrected by deepening the dart at the underarm seam, or perhaps making a second dart be-

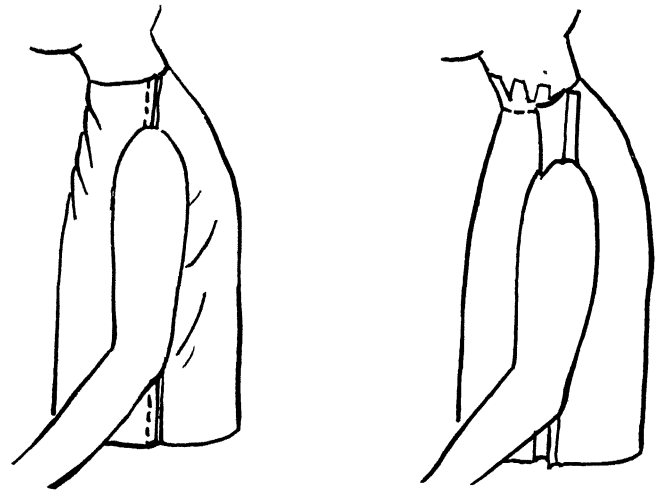


Fig. 14.—For round shoulders, the dress will need to be cut lower in the neck, as shown at right.

low the first, thus lifting the grain at hip, waist, or on a one-piece dress, at the bust. Sometimes it is necessary to widen the seam of the skirt toward the hem.

If the side seams of the skirt of a two-piece dress swing toward the front, the garment may be sagging in the back. To remedy, raise the back at the waistline, and take in the fullness thus made around the waist by means of darts (Fig. 16). If alterations have been made which change the position of the armscye, a new armscye line will have to be marked. Care should be taken in doing this. Put in a line of pins all the way around where the seam line should be, starting at the top of the arm at the end of the shoulder bone. This line should fall straight down the front and back, ending in an easy curve at the underarm. This curve will be deeper in front than in back (Fig. 17).

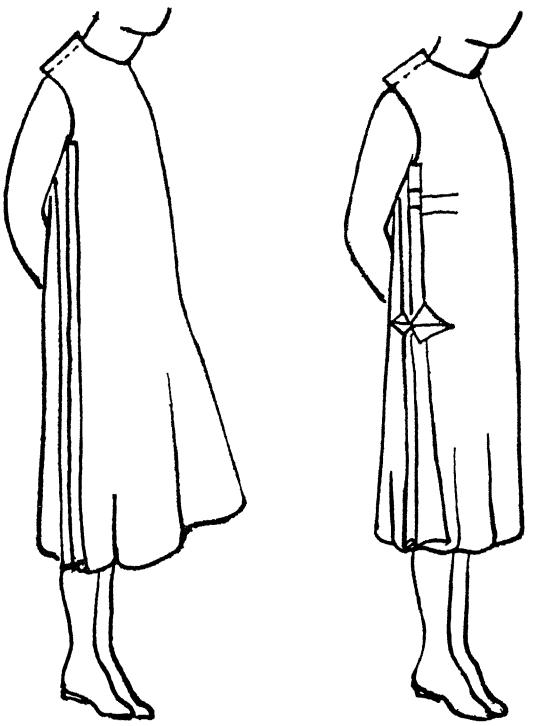


Fig. 15.—At left, a skirt too wide at lower front; widening seam at lower edge, and darts under arm and at hip, as shown at right, eliminate this fullness.

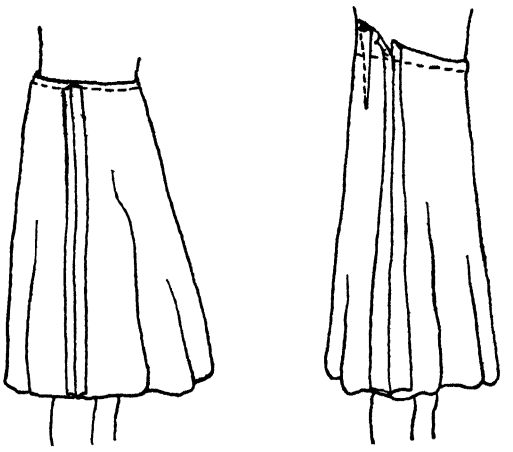


Fig. 16.—Skirt fitted by raising the back at waistline, taking in the extra fullness in a dart, and deepening the side seam.

If the armscye is too big, pin in the underarm seam. Hold the sleeve up to the arm and check for length, fullness at upper arm, and general position. Mark at top of armscye near shoulder seam the position of straight lengthwise grain of sleeve. This should hang straight — swinging neither to front nor back of arm.

Try on the collar, cuffs, belt, tie, or any other trims to determine whether or not any changes are necessary in length, width, shape, etc. Mark position of buttonholes or other fasteners.

Remove garment carefully and transfer alterations from right side to left, so that both sides will be the same. Baste and slip garment on to check changes made in fitting. Where both sides have been fitted this step is omitted.

As soon as possible, stitch all the seams, and set in the sleeves. To do this, first measure around the top of sleeve; this should be about 1 inch larger than the size of the armscye. Place the sleeve in the armscye, working on the wrong side with the two right sides together and the fuller side toward you. Match notches in the sleeve with corresponding notches in armscye, and straight grain of sleeve with top of armscye. Pin together at these points. Place pins perpendicular to edge on the seam line. Pin from top of armscye to front notch and the same toward the back. As the pins are filled in, the extra fullness will be eased in and the finished dress will have neither a gathered nor a drawn appearance (Fig. 18). It may be necessary to adjust the position of the side notches to give the desired effect. Baste sleeves in place.

The next step is to finish other details as collar, placket, facings, buttonholes, etc. Before fastening trimming permanently, try garment on again.

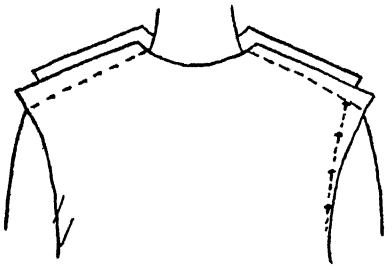


Fig. 17.—Marking a new armscye line.

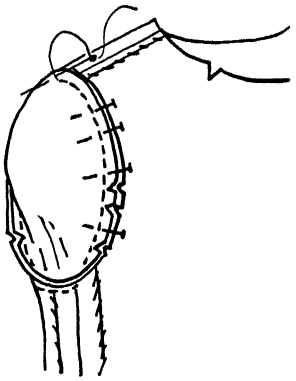


Fig. 18.—Ease sleeve in, and pin before basting.

For this second fitting, check the sleeves very carefully. Be sure that the grain is correct, that the fullness is properly distributed around the armscye, that the fullness is in proper position at the elbow, that the length is correct and that there is a good armscye line. Also check the position of all grain lines, seams, fullness, and the general becomingness.

When ready to hang the garment be certain that it sits straight on the shoulders and in the exact position in which it will be worn. If there is to be a belt, place it in the correct position. Measure from floor up with a yard stick or hem marker the desired length, and mark with a line of pins, placing the pins in a line parallel to the floor. Turn under hem and pin, placing the pins perpendicular to the floor. After carefully checking as to the way it hangs, remove the garment and baste around the edge of hem fold. Measure the width of the hem all the way around. If uneven find the narrowest place, measure, and cut entire hem this width. Finish the hem by the method most suitable to the material and garment design (page 30).

## The Finishing Touches

The finishing touches add to or detract from the appearance of the completed garment. When finishing the garment, be sure to take time for the belt fastenings, the careful sewing of snaps, hooks and eyes, or buttons, etc. All details have their important part to play. Pressing is the final touch and should be done with great care. Consult general directions for pressing different matedials (page 11).

## Stitches and Their Uses

### *Sewing Machine Stitching*

Good machine stitching is straight, even, and well placed in relation to its use. Medium weight percale, gingham and similar fabrics call for medium, well balanced tension (Bulletin 140), medium length stitch (16 to 18 to the inch), 60 to 80 thread, and the correct size needle for this thread and for the machine. Finer fabrics need looser tension, shorter stitch, and finer thread and needle, while coarser ones call for just the opposite.

Use.—As time saving method where strength and a neat, tailored appearance is desired.

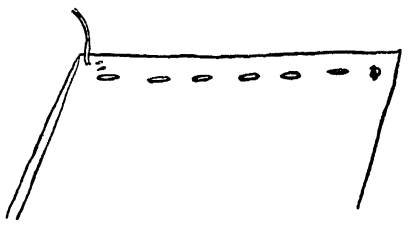


Fig. 19.—Even basting.

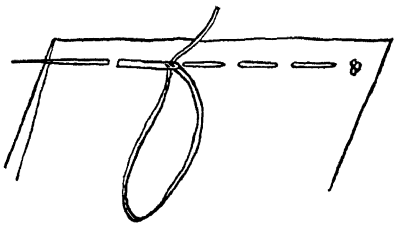


Fig. 20.—Uneven basting.

### *Basting Stitch*

Place work flat on table with the full or bias piece on top. Pin edges to be basted together. Insert pins perpendicular to the edges.

Knot the end of thread. Working from right to left insert needle in the fabric, making a stitch parallel to the edge. Draw thread tight enough so it will be flat on the material. When finished, fasten thread by taking two or three small stitches one above the other. (Fig. 19.)

1. *Even Basting.*—In this type of basting, the stitches and the spaces are of equal length and the length varies according to the strain. The greater the strain, the closer together the stitches need to be (Fig. 19).

Use.—To keep material in position until permanently stitches.

2. *Uneven Basting.*—In this type of basting the stitches are small and the threads are long on the right side of the work. The size of stitches and spaces depend on their use (Fig. 20).

Use.—For marking grain of fabric, to temporarily hold hems in place, for long seams where there is no strain in fitting, or where the material is of a texture that creeps in the stitching.

### *Running Stitch*

The running stitch is a fine stitch made in a series. A row of running stitches is made up of small, uniform stitches and spaces that form a straight line.

Work from right to left. Fasten thread with a knot or with two or three stitches on top of each other. Place needle in the material parallel to edge. Hold material between thumb and forefinger of each hand, forefingers about 1½ inches apart. With thimble against end of needle, push it in and out of cloth with an up-and-down motion of the right hand. When as much material as can comfortably be handled has been gathered upon the needle, slide it back on to thread without removing the needle from the fabric (Fig. 21). Continue until line of stitches has been completed. Fasten thread with two or three small stitches on top of each other, except when gathering, then use a knot.

Use.—To join seams, gather, shirr, and tuck.

### *Hemming Stitch*

The hemming stitch is a small inconspicuous stitch made on the first turn of a twice folded edge. Hold fabric, turned edge basted in place, wrong side up across forefinger of left hand, with the second turn or outside edge toward palm of hand. Start with a knot in the thread and conceal it under the edge to be

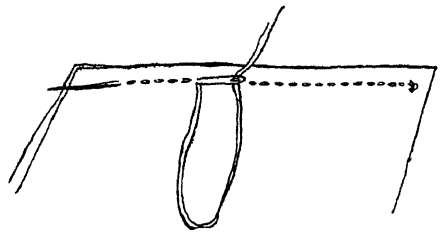


Fig. 21.—Running stitch.

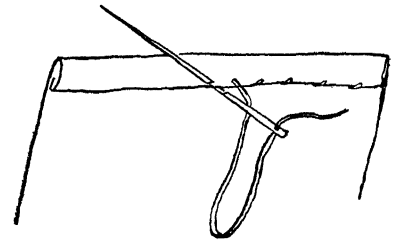


Fig. 22.—Slant hemming.

hemmed, or fasten thread by slipping needle into first fold of turned edge and making several stitches on top of each other. Alway work from right to left. To fasten thread when finished, take two or three stitches on top of each other in folded edge. Use one of the three following stitches:

1. *Slant Hemming.*—Make a small slanting stitch by first inserting needle a little to right of where thread is fastened, catching a few threads of garment. Advance in a slanting direction and pick up a few threads of fold (Fig. 22). Draw needle through. The needle is always slanted toward left shoulder. The stitches should be small, equal distances apart, and uniform in slant on both sides of work.

Use.—To hold hems, facings, bindings, etc., in place when an inconspicuous finish on the right side is not necessary.

2. *Slip-stitch Hemming.*—Bring needle out of first fold and take a small stitch in cloth exactly opposite place where thread is fastened, catching only a thread or two of the cloth. Insert the needle again in folded edge to left of stitch first made and slip it forward within the fold from ¼ to ½ inch (Fig. 23). On the right side stitches are small, uniform in size and spacing, and almost invisible.

Use.—To hold hems or facings in place, where an inconspicuous effect is desired on both wrong and right side.

3. *Vertical or Straight Hemming.*—The method of making is the same as that used for slip-stitch hemming, with the exception that on the wrong side the thread is carried over from one stitch to the other on the outside instead of being concealed with the fold of the hem (Fig. 24).

Use.—To hold hems or facings in place where an inconspicuous effect is needed on the right side only.

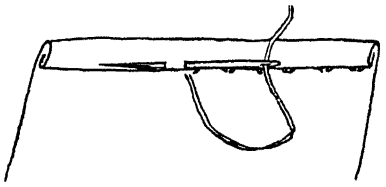


Fig. 23.—Slip stitch hemming.

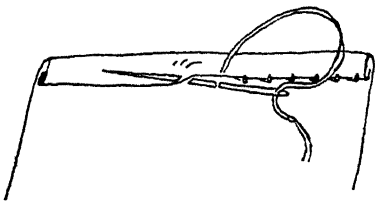


Fig. 24.—Vertical or straight hemming.

## *Overcasting Stitch*

The overcasting stitch is a slanting stitch made over a raw edge to prevent raveling. The appearance is the same on both sides except stitches slant in opposite directions. The depth of the stitch depends upon width of edge being overcast and type of fabric used. The work may be done from left to right, but more speed can be attained by working from right to left. The finished stitches should be uniform in size and slant, and the same distance apart.

To start, fasten thread with a small concealed knot or by taking three or four running stitches in opposite direction from which work is to be done, and close to edge of fabric. Hold work between the left forefinger and thumb. Insert needle from the underside of the material, pointing it toward the left shoulder, and bring it through to the upper side. This makes a slanting stitch over the edge of the fabric. The loop of thread forming the stitch should fit the width of the fabric included in the stitch without puckering. The distance between each stitch should be once again the depth of the stitch (Fig. 25). Each stitch may be made separately, or several stitches may be taken on the needle at one time. Keep thread loose enough that edge will not curl.

Use.—To prevent raveling, as on raw edge of plain seam.

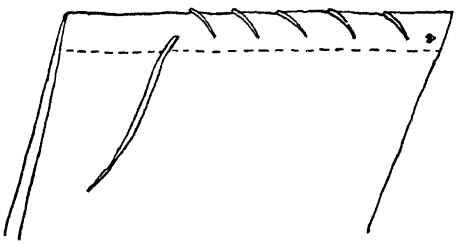


Fig. 25.—Overcasting stitch.

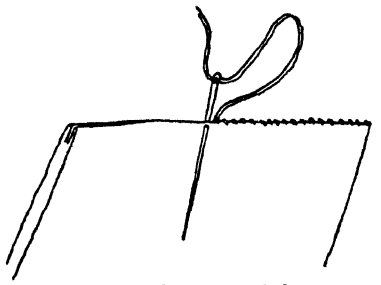


Fig. 26.—Overhand stitch.

### *Overhand Stitch*

The overhand stitch is a shallow stitch used to hold two finished edges together. On right side the stitches are perpendicular to the edges; on wrong side they slant across the edges. The finished stitches should be almost invisible, uniform in size, direction, and spacing. Baste right sides together, folded edges even. Hold the work between thumb and first finger of left hand, with folded edges up. Work from right to left. Fasten thread with two or three stitches on top of each other. Holding needle at right angles to edge insert it in the fabric, picking up only a thread or two of both folded edges (Fig. 26) and draw it through. Stick over edge and proceed with next stitch. The thread should be loose enough to prevent puckering, but tight enough that stitches will sink into cloth.

Use.—To join finished edges as ends of hems in towels, lace and hems, lace and embroidery, or lace and beading.

### *Catch Stitch*

This stitch is decorative in appearance. The threads should be uniform in slant, size, shape, and method of crossing. The size depends on the use.

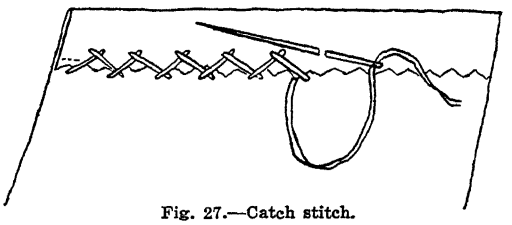


Fig. 27.—Catch stitch.

Work from left to right on two imaginary, parallel horizontal lines from ¼ to ½ inch apart. Fasten thread with several running stitches from right to left on one of these lines. Take a small stitch on the other line far enough to the right to give the desired slant, keeping thread to right of needle, and needle in a horizontal position, pointing toward the left. Pick up only a few threads of the material and draw the stitch up. On the first line and same distance to the right make another stitch (Fig. 27). Repeat alternating stitches between lines. Fasten thread with several running stitches.

Use.—For decoration, or holding in place a hem with an unturned edge.

### *Back Stitch*

On the right side the back stitch resembles machine stitching; on the wrong side the outline stitch. It should be about the size of ordinary machine stitching, uniform and straight. Work on right side of fabric and from right to left. Start by making a small stitch at the right hand end of the work. Make a second stitch on top of this one by inserting the needle a second time in the hole at the beginning of the first stitch, but this time bring it out the length of the stitch in advance of end of first stitch (Fig. 28). Continue putting needle back each time so that line of stitching is continuous, with no spaces between stitches. The stitch advances only on the wrong side of the fabric.

Use.—Where strength is needed in a hand made seam.

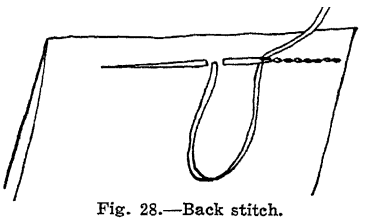


Fig. 28.—Back stitch.

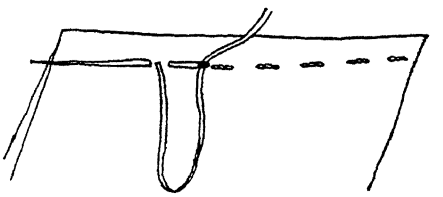


Fig. 29.—Combination stitch.

### *Combination Stitch*

This stitch is made by combining two stitches, the running stitch and the back stitch. Work from right to left. Fasten thread as for running stitch. Take three running stitches, then one back stitch (Fig. 29).

Use.—Where strength is needed in a hand made seam.

### *Tailors' Tacks*

Tailors' tacks are threads laced through the fabric. They are used to mark two thicknesses of material and should be made before the pattern is removed after cutting out a garment. Use a long double thread. Take a small stitch through the perforation of the pattern and into the double thickness of fabric, leaving an end of thread about 1 inch in length. Take another stitch in exactly the same place, leaving a large loop (Fig. 30); then cut the thread, leaving an end about 1 inch long. If tailors' tacks are to be close together, the thread may be carried from one tack to the other, and the same process repeated. The thread

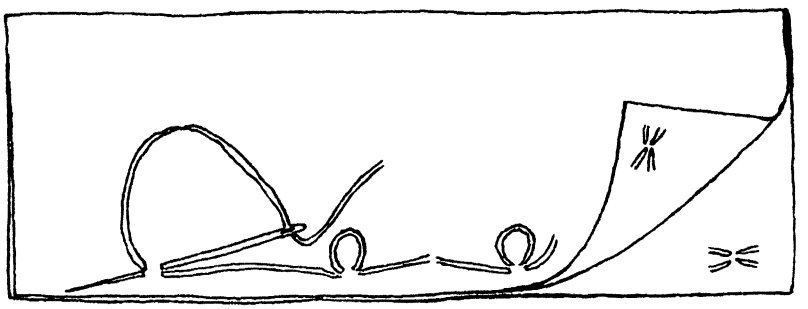


Fig. 30.—Tailor's tacks.

is then cut between each tack so that the pattern can be removed. Take the pattern off and separate the thicknesses of material as far as threads will permit; cut in the center of the thread. This leaves threads on each piece, marking both pieces of material in one process.

Use.—To mark position of pleats, tucks, darts, pockets, seam allowances and notches, where two pieces are to be exactly the same.

Thread used for decorative stitches is selected to show contrast either in color, texture, or weight with the fabric on which it is used. Cotton or mercerized cotton is used on cotton fabrics. Silk or rayon thread is used on silk and wool fabrics. Wool yarn is sometimes used on wool and silk fabrics. Thread for decorative stitches is either made of several separate strands or it may be a single thread loosely twisted. Strand thread gives a soft effect, while twisted thread gives a harder effect.

When decorative stitches are used on washable fabrics the thread should be color fast. Embroidery, crewel, or chenille needles should be used with heavy art threads.

### *Featherstitching*

Featherstitching is made up of variations of the blanket stitch taken alternately on the right and left sides of a center line. The stitches should be uniform in size and direction, and equal distances apart. Suitable embroidery thread should be used.


Fig. 31.—Single straight featherstitch.

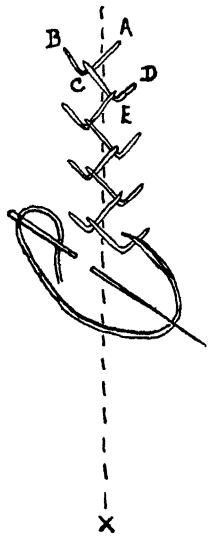



Fig. 32.—Single slanting featherstitch.

1. *Single Straight Featherstitch.*—AX (Fig. 31) is the center guide line. Bring needle out at A, securing thread with several back stitches on wrong side. Hold thread down with left thumb and insert needle at B, bringing it out at C, forming a blanket stitch. Throw thread to the left and make stitch DE. The distance between stitches BC and DE is usually twice the length of the stitch taken.

The needle is always put in fabric straight across from or just below end of last stitch taken. Fasten thread with a short stitch to hold last blanket stitch in place.

Use.—As a decoration to form a design or to hold edges of hems and facings in place.

2. *Single Slanting Featherstitch.*—AX (Fig. 32) is the center of the design. Bring needle out at A, securing thread on wrong side with several back stitches. Insert needle at B, and bring it out again at C. Holding the thread down with left thumb, put the needle in at D and bring it out at E, joining a second blanket stitch. Repeat on opposite side.

Use.—See single straight featherstitching.

### *Blanket Stitch*

The blanket stitch may be made on a finished or raw edge. The stitches should be uniform in size and spacing, and perpendicular to the edge. Use em-

broidery thread. Work from left to right, with material held along forefinger of left hand and edge to be finished toward you. Fasten thread with back stitches on back of narrow hem, or on raw edge with two or three running stitches made toward edge. Bring the needle out on the edge to be finished.

By varying the length of the stitch and by grouping the stitches, attractive variations may be made (Fig. 33).

Holding thread under thumb of left hand, place point of needle in fabric the desired distance from the edge (this may be the width of the narrow hem or about ¼ inch). Bring it out from the under side of fabric and over thread from last stitch. The needle passes through a loop of thread each time it is drawn from the fabric, so that when the stitch is finished a thread follows along the edge of

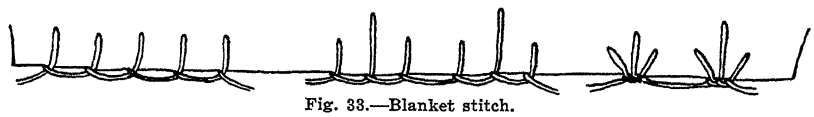


Fig. 33.—Blanket stitch.

the fabric. Continue in this manner, inserting needle to right of stitch just made. The stitches are usually a little less than ¼ inch apart. Fasten thread on wrong side with running stitches.

Use.—To hold narrow hems or appliqued designs in place, to finish raw edges of blankets or garments, and to outline decorative designs.

### *Outline Stitch*

Outline stitches should be of even length and uniform slant. Work from left to right, and follow the line of a design. Use suitable embroidery thread. Fasten thread with several running stitches in the oppositie direction from which work is to be done. Take a stitch along the line of the design with the needle point slanted toward the left shoulder and thread thrown to right of work. Make each stitch overlap half way on preceding stitch. The thread always falls on the same side of needle. Fasten thread with running stitches on wrong side of work.

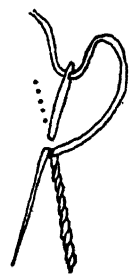


Fig. 34.—Outline stitch.

Variations in this stitch are made by throwing the thread to the left for all stitches, making the stitches shorter or longer, and by changing the slant of the needle.

Use.—As a decoration to outline a design or to hold a hem in place.

### *Cross Stitch*

This stitch forms a series of crosses. The stitches should cross in center; cross in the same way and work in same direction with finished crosses meeting. On wrong side, work is made up of horizontal and vertical lines. The threads of the fabric, cross stitch canvas, or a stamp design, will serve as a guide. Use suitable embroidery thread.

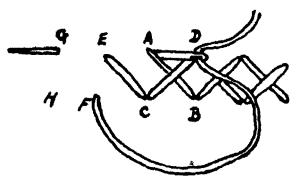



Fig. 35.—Cross stitch.

Begin at the top of the design and work down. Fasten thread by leaving a long end on wrong side, to be later held in place by cross stitching. Bring

the needle out at A (Fig. 35), insert at B, bring out at C, and insert at D, thus completing the first cross. Bring the needle out at E to start the second cross. Insert at C, bring out at F, insert at A, bring out at G, starting third cross. Repeat to end of row, then turn material and work next row.

If there is a long line of crosses to be made it may be quicker to make all the stitches in the same direction first, then cross them all at one time.

If working on canvas, draw threads tightly, so that when canvas is removed thread will not be loose. When design is completed soften canvas by rubbing it between the hands, or dampen slightly, and remove threads singly.

Use.—For decoration.

### *Decorative Running Stitch*

Several rows of running stitches of varying lengths and different colors of embroidery thread make attractive decorations (Fig. 36).

Use.—As a decoration on heavier materials.

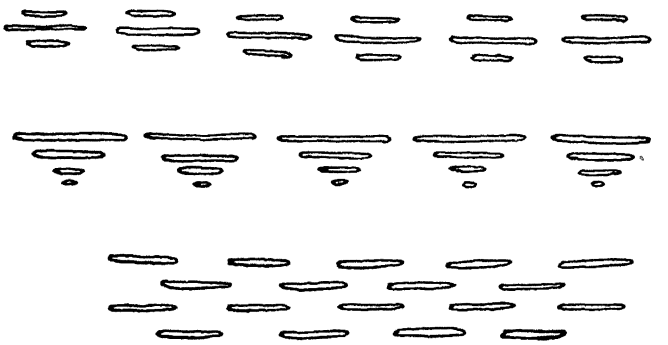


Fig. 36.—Decorative running stitch.

Fig. 37.—Chain stitch.

### Chain Stitch

This stitch resembles the links of a chain. The stitches should be uniform in size, they should all interlock, and each stitch or link should be closed at the top.

Use embroidery thread. Fasten thread with several running stitches. Bring the needle out at top of design to be chain-stitched and to the right side of fabric. Hold the thread under the left thumb a little to the left of line of design. Insert needle to the right of hole through which the thread just came, and bring it out the length of a stitch in advance along the line of the design, passing needle over thread held by thumb (Fig. 37). Draw up the stitch to form a loop. Make a short stitch over the last loop to hold it in place. Fasten thread with back stitches on wrong side.

Use.—As a decoration.

The choice of seams for a particular use depends upon the type of garment, it use, the kind of fabric, the shape of the pieces, and the current fashion. Several kinds of seams may be used on a single garment, but they should all look the same or related on the right side. Plan the seams for the entire garment before making any of them.

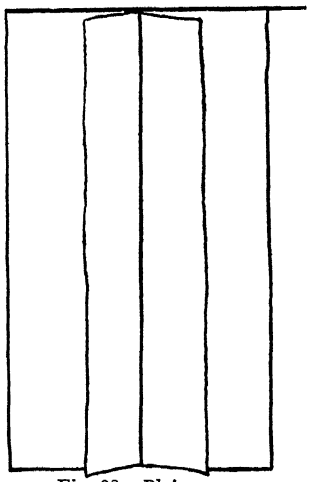


Fig. 38.—Plain seam.

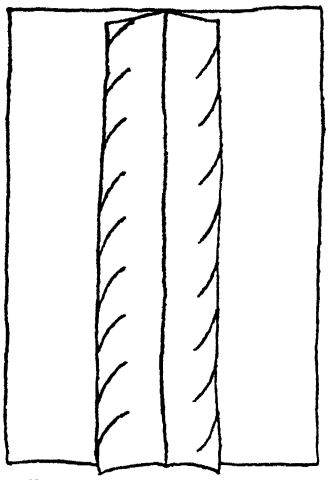


Fig. 39.—Plain seam overcast.

*Plain Seam*

To make a plain seam place the two right sides of the fabric together; baste along seam line. Stitch and remove basting. Press the seam so that the two edges on the wrong side are together, as for armscye and seam at under side of plaits, or press them open as for underarm and straight skirt seams (Fig. 38).

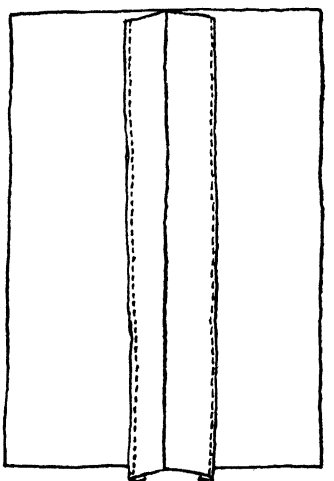


Fig. 40.—Plain seam, edges turned and stitched.

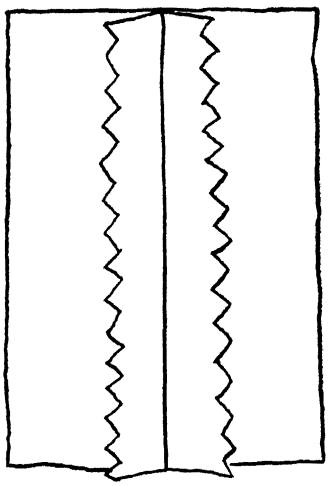


Fig. 41.—Plain seam, edges pinked.

Finish the edges in one of the following ways, depending on the material, location of seam, and effect desired.

1. *Overcasting.*—Trim seam to about ⅜ or ½ inch in width and overcast the raw edges (Fig. 39).

Use.—Where a flat seam is desired, and on fabrics that ravel.

2. *Edges Turned and Stitched.*—Trim seam to ½ or ¾ inch in width; press open, turn each raw edge under ⅛ inch and stitch on edge by machine. (Fig. 40.)

Use.—Where a neat flat finish is desired on non-transparent materials of medium weight and firmness.

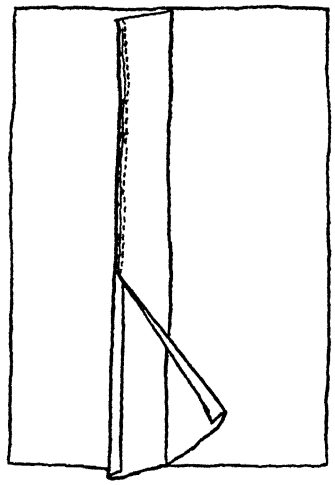


Fig. 42.—Imitation French seam.

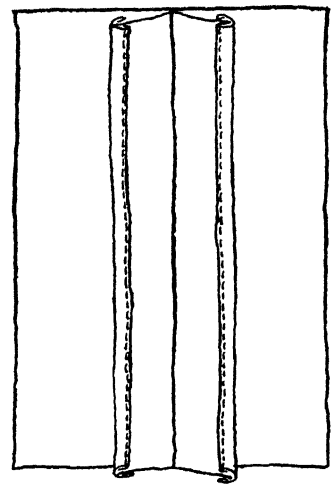


Fig. 43.—Plain seam bound.

3. *Pinking.*—Trim seam to about ¾ inch in width and finish raw edges by cutting to form a saw-tooth edge. This may be done with a pinking device or by cutting notches with shears (Fig. 41).

*Use.*—Where a flat seam is desired, on material that does not ravel easily, and on material that will not need to be laundered often.

4. *Imitation French Seam.*—Turn raw edges toward each other, and baste together. Finish with running stitches or machine stitching (Fig. 42). Finished seam should not be wider than ¼ inch.

Use.—On very sheer material, and as a finish for curved edges.

5. *Binding.*—Trim seams to about ½ inch in width and bind raw edges together or separately (Fig. 43).

Use.—On losely woven materials that ravel easily; also on tailored unlined coats where wrong side is apt to show.

### *Lap Seam*

Turn raw edge of one piece on the seam line and to wrong side, pin, baste, and press. Mark seam line on right side of second piece with line of basting.

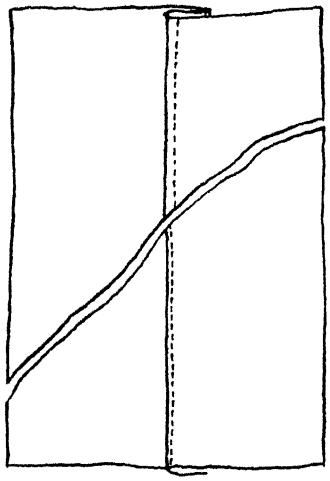


Fig. 44.—Lap seam.

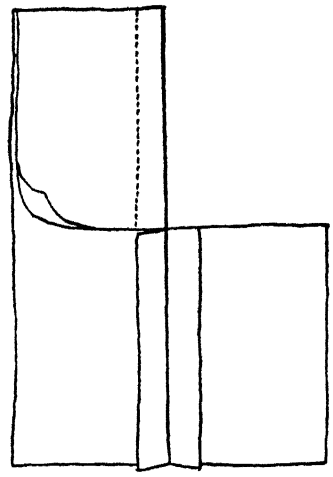


Fig. 45.—French seam.

Place the folded edge of the first piece on the line of basting on second piece. Pin, baste flat, and stitch on right side desired distance from folded edge. (Fig. 44). Finish wrong side by overcasting, pinking, or by stitching raw edges together.

Use.—For firm medium weight non-transparent materials. When outside stitching is desired to give decoration; also for joining shaped edges.

*French Seam*

Make plain seam on the right side. Trim the seam as close to the stitching as the character of the goods will allow. Fold material with right sides together, creasing along the line of machine stitching. Stitch again desired width from the folded edge (Fig. 45). The finished width should not be more than ¼ inch.

Use.—This seam is used on light-weight materials, underwear, night-gowns, petticoats, lingerie dresses, and children's clothes. It should be used only for straight or slightly curved seams.

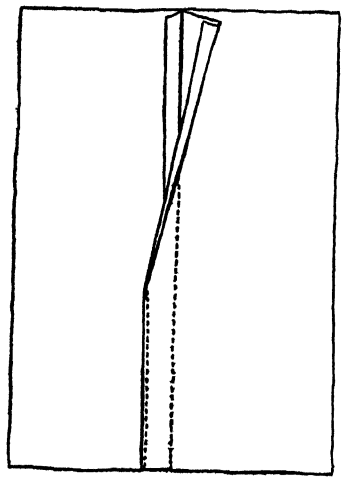


Fig. 46.—Felled seam.

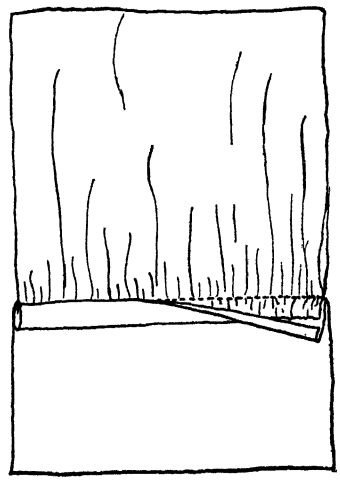


Fig. 47.—Standing felled seam.

### *Felled Seams*

1. *Flat Felled Seam.*—Make a plain seam on the right side about ½ inch wide. Open garment and press or crease on line of stitching. Cut under edge of seam about ⅛ inch from stitching. Turn under edge of wider side to inclose narrower side. Crease both edges flat in direction in which seam is to be turned, baste, and stitch flat to garment through the three thicknesses of fabric (Fig. 46). There will be two lines of stitching on the right side. The finished width of seam should not exceed ¼ inch.

Use.—On tailored garments or underwear where a flat finish is desirable.

2. *Standing Felled Seam.*—To join one straight edge and one gathered edge. Baste a plain seam on the wrong side, slipping the gathered edge back from the plain edge ½ inch. Stitch on seam line. Fold the wider edge with two turns over the narrow edge. Baste and stitch, or hem by hand (Fig. 47).

Use.—Where a gathered piece is joined to a plain piece or a ruffle is joined to a straight edge.

●

## Hems and Their Finishes

A hem is an edge finish made by a single or double fold of the edge of the fabric.

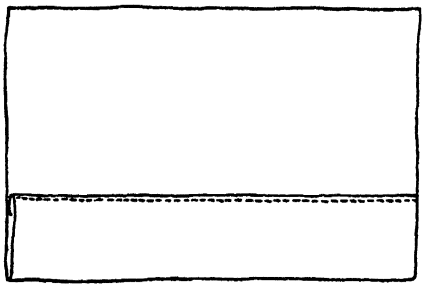


Fig. 48.—Machine stitched hem.

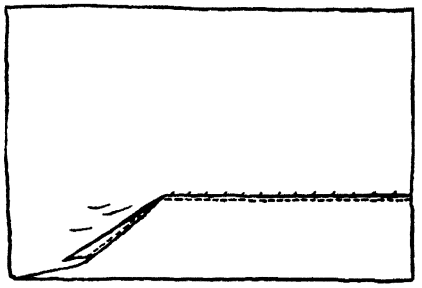


Fig. 49.—Hem put in by hand.

### *Plain Hem*

For a double fold hem crease or baste first turn of hem ⅛ or ¼ inch to the wrong side. Measure and baste the second turn of hem the desired width. For a single fold hem this is the first turn. If edge is curved, hold in extra fullness at top of hem by gathers or small darts. These darts should be at right angles to the edge of the hem. The width of the hem depends upon its use, position, and the current fashion.

*Finishes.*—Use one of the following finishes for the hem:

1. *Machine Stitching.*—Stitch hem in garment. The stitching should be close to the edge of first fold on the wrong side (Fig. 48).

Use.—On double fold hems. Usually on cotton material where a flat finish is desired—as on house dresses, children's play garments, and undergarments.

2. *Hand Hemming.*—Stitch first fold of hem by machine close to the edge. Hem this edge to garment, using one of the hemming stitches (Fig. 49).

Use.—On double fold hems where a neat flat finish is desired on materials of medium weight, especially for a wide hem on fine materials.

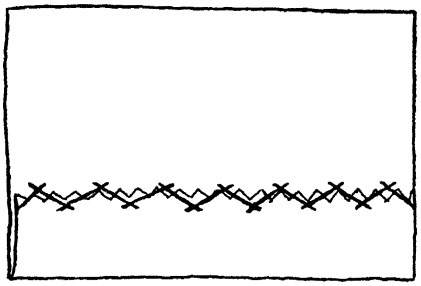


Fig. 50.—Notched hem catch stitched to garment.

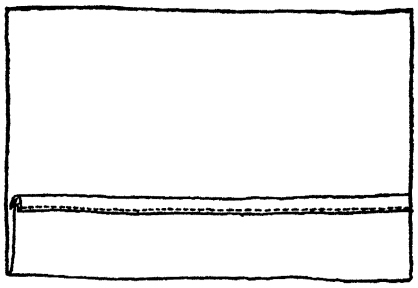


Fig. 51.—Edge of hem bound.

3. *Catch Stitching.*—Pink, notch, or machine stitch raw edge of hem. Catch stitch hem to garment (Fig. 50).

Use.—On single fold hem where a flat hem is desired on material that does not ravel easily—usually wool.

4. *Binding.*—Bind raw edge with taffeta seam binding for wool or silk fabrics, and then hem binding to garment with hand hemming stitch (Fig. 51).

Use.—On single fold hems of loosely woven material that ravels easily. Usually used on tailored garments made of wool.

5. *Facing.*—Face raw edge with taffeta seam binding for wool or silk, and bias fold for cotton fabrics. Hem to garment with hand hemming stitch (Fig. 52).

Use.—On single fold hems where a flat hem is desired, on loosely woven materials that ravel easily, or on bulky materials.

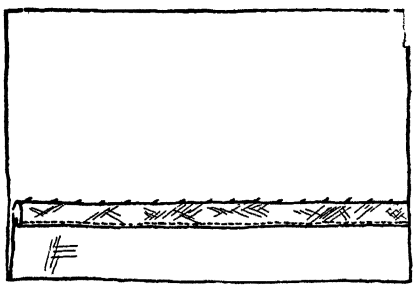


Fig. 52.—Hem faced to garment.

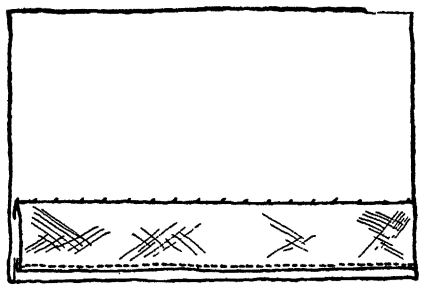


Fig. 53.—Faced hem.

*Faced Hem*

For method of making see Facings (p. 34).

Use.—On circular edge, when garment is not long enough for desired hem, and on material too bulky to hem (Fig. 53.)

### *French Hem (with lace)*

Crease a narrow plain hem, folding it twice to the right side of the fabric. Then fold the hem back against the wrong side and crease the cloth on a line with first fold of hem. Place right side of lace against right side of material. Overhand the two edges of hem and lace together (Fig. 54).

Use.—As a finish for undergarments and children's clothing.

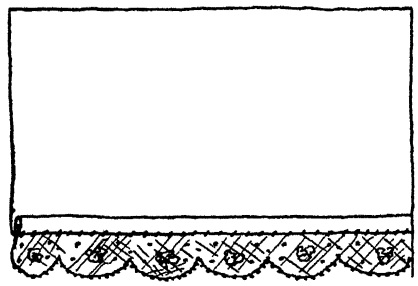


Fig. 54.—French hem with lace.

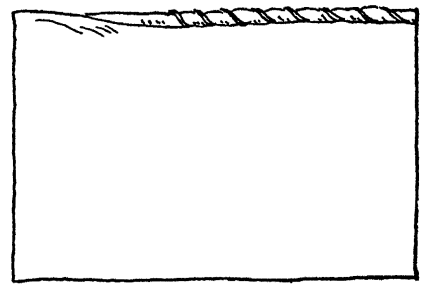


Fig. 55.—Rolled hem overcast.

### *Rolled Hem*

With wrong side of cloth up, roll edge tightly between thumb and forefinger of the left hand. Hand hem rolled edge if an inconspicuous finish is desired; or overcast it if the edge finish is to form a decoration (Fig. 55). Keep about 2 inches rolled ahead of the sewing. When making the hem on a bias edge, it is easier if a row of machine stitching is first made close to the edge of the fabric. This will keep it from stretching.

Use.—For handkerchiefs, collars, infants' and childrens' clothing, undergarments, and dresses.

*To Gather a Rolled Hem.*—Overcast the rolled edge. The overcasting stitch should be as deep as the width of the roll. Draw the thread up as the work proceeds, rolling and overcasting an inch or two at a time.

Use.—For infants' and children's clothing, undergarments, and dresses.

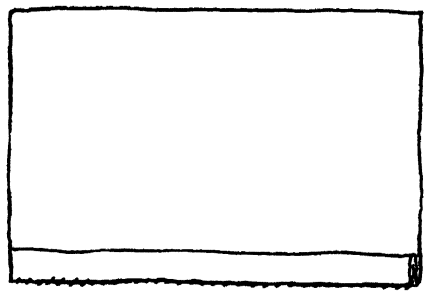


Fig. 56.—Damask or napery hem.

### *Damask or Napery Hem*

Fold a narrow plain hem, turning it twice to the wrong side of the fabric. Then fold hem back against right side of fabric, creasing material even with the first fold of hem. Overhand folded edges together (Fig. 56). Open and press flat.

Use. — To finish edges of tablecloth, lunch cloths, napkins, and towels.

## Making and Use of Bias

Bias is that part of material which falls on neither lengthwise nor crosswise grain of the fabric. It stretches easily and must be handled carefully. If a bias strip is pulled, it becomes narrower; if it is eased, it becomes wider.

There are two general types of bias—true bias, and garment or dressmakers' bias. True bias crosses the warp and filling yarns at a 45-degree angle; in other words, it is the diagonal of a perfect square. A garment bias is that edge or fold made by crossing the warp and filling yarns at any other angle. True bias is used for bindings, facings, pipings, folds, cord covered trims and buttonholes.

1. *To Cut a True Bias Strip.*—Fold the material so that the warp yarns lie parallel to filling yarns. Crease material and cut on the crease (see AB, Fig. 57). This edge is a true bias edge. To cut a true bias strip measure from this edge the desired width of the strip. Mark or crease and cut on this line.

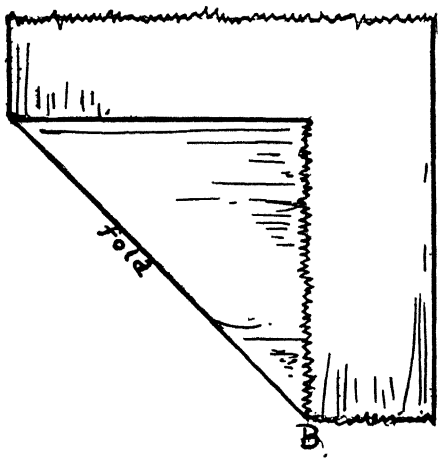


Fig. 57.—Material folded to form true bias (AB).

2. *To Join Bias Strip.*—Cut ends of strips on thread of fabric (draw thread if necessary), place the two pieces to be joined right sides together forming a right angle. Match design and thread of the two strips of material, allowing one to project over the other at the corners the width of the seam. Join with a plain seam. Press open and cut off protruding corners. When bias strips are joined correctly, the edges form a straight line and the strip is the same width throughout (Fig. 58).

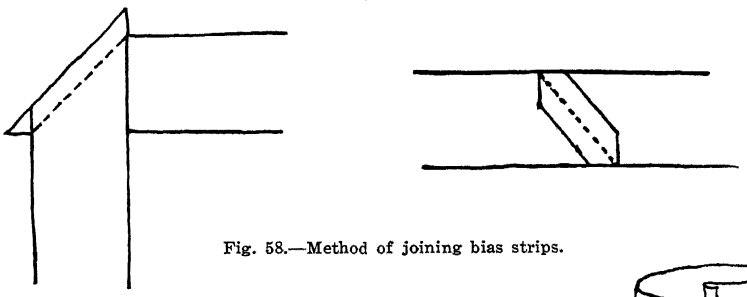


Fig. 58.—Method of joining bias strips.

3. *To Join Bias Before Cutting Strips.*—This is practical only when several yards of bias are required. Measure off necessary number of successive rows needed and cut a true bias strip wide enough to include these. Place the straight edges together as for a plain seam, slipping the bias edges by each other the width of one bias strip. Stitch, then cut bias strip like a spiral (Fig. 59). This saves time when much bias is to be cut and joined.

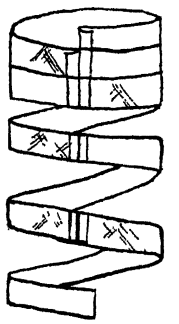


Fig. 59.—Cutting bias strips after joining.

## Facings

Facings are used to finish shaped edges, raw edges where the material is not long enough to hem, or where a decoration is desired. They may show on either right or wrong side of the fabric, but never on both sides.

### *Straight Facing*

Cut strip for facing on straight of fabric. Baste right side of facing to right side of garment for a wrong side facing, or reverse for a right side facing. Stitch a seam's width from edge. Turn facing on line of stitching to opposite side, crease ¼ inch turn on raw edge of facing, and baste flat to garment (Fig. 60). Stitch by machine or hem by hand. Miter corners if necessary.

Use.—On straight edges of undergarments, dresses, towels, etc., as a finish or decoration.

### *Bias Facing*

Cut facing on true bias. Apply as a straight facing (Fig. 61). To insure a flat finish on curved edges, finished facing should not exceed ½ inch.

Use.—On curved or straight edges of undergarments, dresses, household articles, etc., as a finish or decoration.

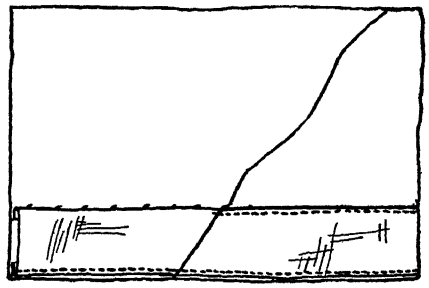


Fig. 60.—Straight facing.

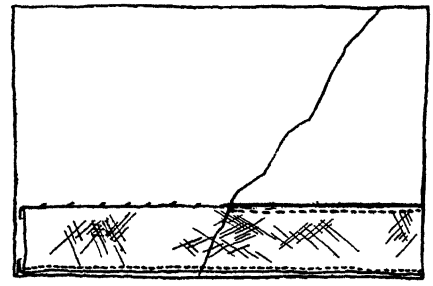


Fig. 61.—Bias facing.

### *Bias Fold Used as Facing*

Turn edge to be faced ¼ inch to right or wrong side. Baste folded bias strip flat to cover the raw edge, and stitch both edges of fold flat to garment.

Use.—As edge finish on undergarments, house dresses, and aprons.

### *Fitted Facing*

A fitted facing may be cut on the bias or straight of the fabric. Using edge to be faced as a pattern, cut facing exactly the same size and shape and any desired width. Apply the same as a straight facing. After the first stitching and before turning, the seam should be slashed in the case of an inside curve, square, or V; notched for an outside curve (Fig 62*a*), and cut across point for a pointed edge. To finish see Fig 62.

Use.—As finish for shaped edges, as neck lines and circular skirts.

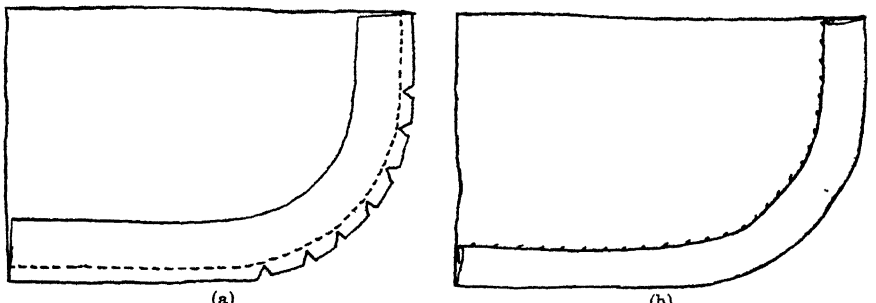



Fig. 62.—Fitted facing (outside curve).

### *Shaped Facing*

A shaped facing may be bias, straight, or fitted. The inner edge of this facing may be cut to give the desired width and design. Squares, scallops, and points are commonly used. To apply, place facing to the right or wrong side. Stitch width of seam from edge (Fig. 63*a*). Snip or slash seam (see fitted facing, Fig. 62*a*). Turn facing to opposite side and crease on line of stitching. Crease ¼ inch turn on shaped raw edge; snip seam as for fitted facing. Baste, and stitch by machine, hem by hand (Fig. 63*b*), or use a decorative stitch such as feather or blanket stitch.

Use.—As a finish or decoration on shaped edges as necklines, lower edges of sleeves, curved edges of skirts, undergarments, and household articles.

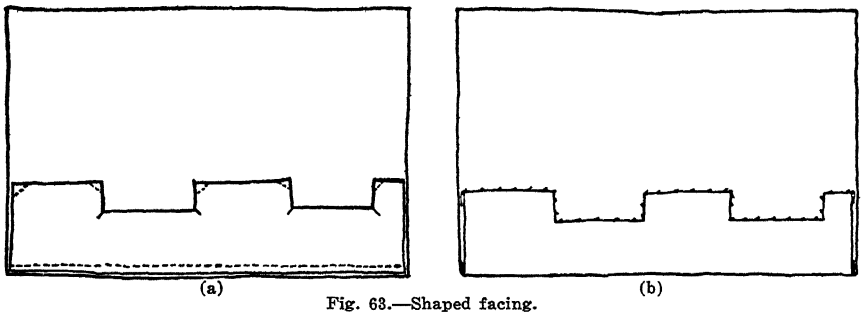



Fig. 63.—Shaped facing.

## Bindings

Bindings are used to finish raw edges. They usually show on both right and wrong sides of the fabric. There are several kinds of bindings. The kind selected will depend on style of garment, fabric and fashion.

### *Single Bias Binding*

Cut a true bias strip twice the width of finished binding plus two seam allowances. Place right side of binding against right side of garment, baste and stitch. Crease binding against line of stitching. Turn in raw edge above line of stitching on the wrong side and hem by hand. If machine finish is desired, fold wrong side of binding slightly wider than right side, baste in position and stitch from the right side close to the rolled edge of the binding but not on it (Fig. 64).

Use.—As a finish and decoration on garments made of firm fabrics.

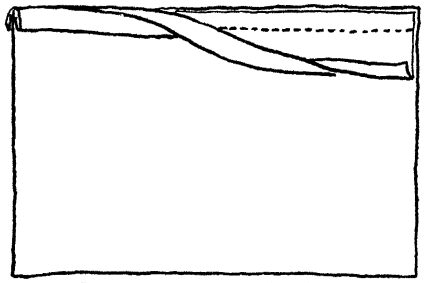


Fig. 64.—Single bias binding.

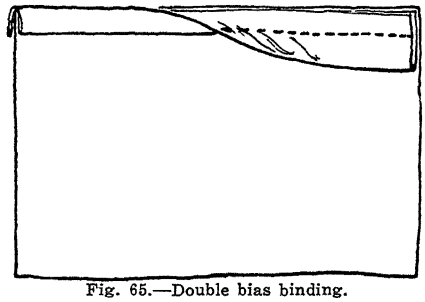


Fig. 65.—Double bias binding.

*Double Bias Binding or French Bias*

A binding of thin or loosely woven material may be applied double. Cut true bias strip four times the width of the finished binding plus two seam allowances. Fold bias strip through center, right side of fabric out, and baste or press. Place right side of binding to right side of garment with unfinished edges matching (Fig. 65). Baste and stitch. Turn opposite edge of bias to wrong side of garment and hand hem folded edge above first line of stitching. If machine finish is desired fold binding on wrong side slightly wider than right side, baste and stitch from the right side close to edge of fold.

Use.—Decorative finish for edges of neck and sleeves, or trimmings on garments of thin loosely woven material.

*Straight or Flat Binding*

Commercial bias binding may be used, or a true bias strip may be cut, folded, and pressed so that raw edges meet in the center, to resemble commercial binding. In either case fold bias again, with the raw edges in, so that the under part of binding is a thread wider than the top, or use double fold commercial bias. With wider side to wrong side slip binding over edge to be bound. Baste and stitch from right side on edge of binding (Fig. 66).

Use.—As an edge finish or trimming on undergarments, aprons, house dresses, and children's play garments.

●

BIAS PIPING

Cut a true bias strip once again the width of finished piping plus two seam allowances. Fold through center lengthwise, right side of fabric out, and press.

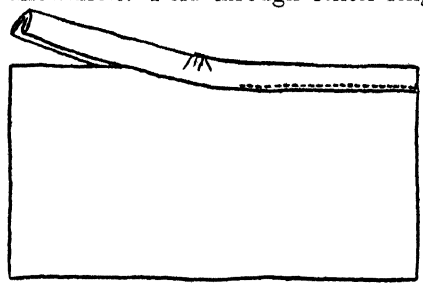


Fig. 66.—Straight or flat binding.

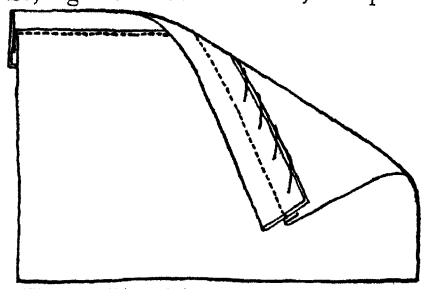


Fig. 67.—Bias piping used as an edge finish.

Insert this in a plain or a lap seam so that a narrow fold will extend beyond seam line on right side. For plain seam, stitch on seam line on wrong side of garment; for lap seam, stitch on right side as for a plain lap seam. Bias piping may also be used as an edge finish, but the seam allowances must be wide enough to form a facing on the wrong side (Fig. 67).

Use.—As a decoration.

## Corner Finishes

When hem or facings are used to finish a corner it is sometimes necessary to remove extra fabric to give a flat finish or to make the stitching continuous.

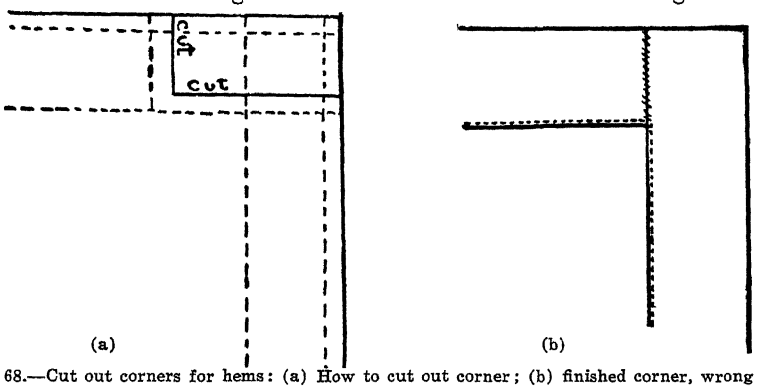



Fig. 68.—Cut out corners for hems: (a) How to cut out corner; (b) finished corner, wrong side.

### *Cut-Out Corners for Hems*

Fold hem on both sides of the corner and crease. Mark along edge of hem where it overlaps. Cut oblong piece from the under fold, leaving a seam's width along the creases (Fig. 68*a*). Turn hems back in position, stitch or hem by hand, and overhand the ends of hems (Fig. 68*b*).

Use.—To remove bulk from overlapping hems.

### *Mitered Corners in Hems*

Fold hems the desired width on both sides of corner. With work flat on table, hold hems on both sides of the corner in place. Draw out extra overlapping

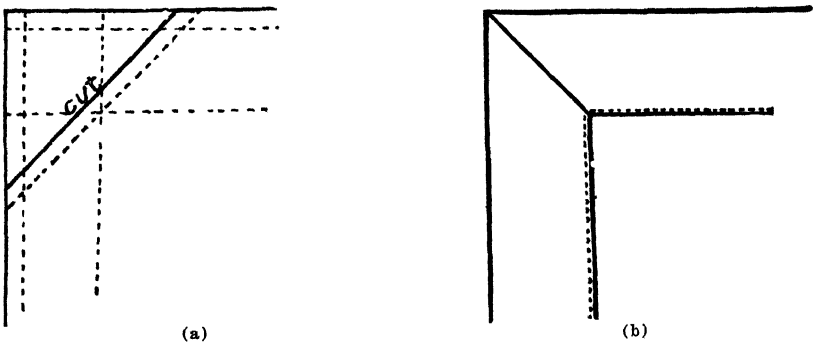



Fig. 69.—Mitered corners in hems: (a) showing line on which to cut for a mitered corner; (b) finished mitered corner, wrong side, diagonal stitched on wrong side.

material. Make diagonal crease from outer to inner corner across width of hem (Fig. 69*a*). Turn wrong side out and stitch edges together on the diagonal crease. Cut off extra material, allowing ¼ inch above stitching. Press seam open and turn right side out. Or the extra material may be cut away and the hem opened and creased. Turn the seam to the wrong side on one-half of the diagonal. Fold hem in position and baste. Hem the diagonal fold by hand. Stitch hem on machine (Fig. 69*b*) or hem by hand.

Use.—To remove bulk from overuapping hems.

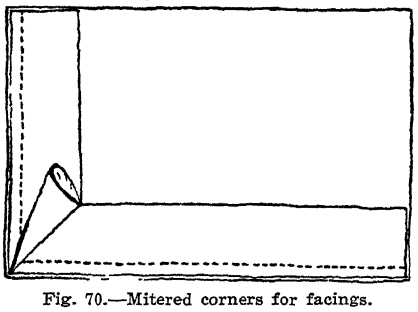


Fig. 70.—Mitered corners for facings.

*Mitered Corners for Facing*

After the facing is applied the same principle used in mitering hems may be applied to mitering a facing (see "Mitered Corners in Hems," page 37), may be applied to mitering a facing (Fig. 70).

Use. — To remove bulk from overlapping facings.

## Plackets

Plackets are finished openings for garments. The kind of garment and position of opening influence the choice of placket. There are several different kinds; those most commonly used are:

*Continuous Bound Placket*

Cut the placket opening the required length. Cut binding on lengthwise grain of fabric, twice the length of opening plus 1 inch, and twice the width plus two seam allowances. If the placket is to be hemmed by hand, place right side of binding against right side of garment; if it is to be made by machine, place right side of binding against wrong side of garment. With the garment up, baste garment and binding together to within ½ inch of end of placket gash—slip garment down ⅛ inch on binding strip at point of the gash, making seam on garment narrower; turn garment and finish basting the other side in one continuous line. Stitch and press the seam toward the binding. Turn binding to opposite side of garment, fold under raw edge, and baste on line of machine stitching to cover seam (Fig. 71). Stitch or hem by hand. Fold placket in position and stitch diagonally across the end of binding on the wrong side.

Use.—Lingerie, dresses, and children's clothes.

*Bound Faced Placket*

See continuous binding placket for cutting. Place right side of binding against right side of garment. Baste and stitch as for continuous binding placket. Crease binding firmly through center its entire length. Crease the binding crosswise at end of opening. On the upper side of placet cut away binding a seam's width from the crosswise and lengthwise creases and on the outside of the creases (Fig. 72). Fold this edge of binding back against garment, baste and stitch the length of placket, and across end. This stitching shows on right side of garment. Finish under side of placket as for a continuous binding placket.

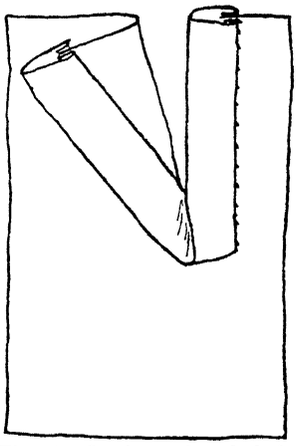


Fig. 71.—Continuous bound placket.

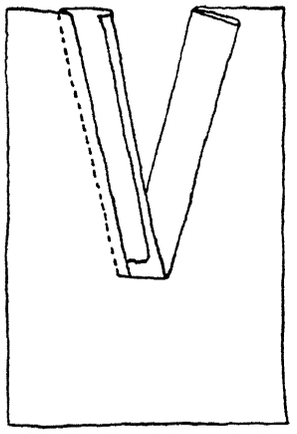


Fig. 72.—Bound faced placket.

Use.—This placket is less bulky than the continuous binding placket, and is used on undergarments and children's clothing.

### *Hemmed Placket*

Cut placket opening in center back of garment. At end of opening snip ¼ inch in each direction on the crosswise thread. Fold hems to the wrong side of garment on both sides and stitch. Hem on right side of placket must be wider than on left side. Lap wide hem over narrow hem until edge of narrow hem is in line with the stitching of the wider hem. Finish end of placket with two rows of stitching, including ends of hems (Fig. 73).

Use.—Where placket is not in seam line, and where it is possible to remove fullness from top of garment as in children's garments.

### *Bound Buttonhole Placket*

Mark position of placket opening with a line of basting. Cut a true bias or straight piece of fabric 1 inch longer than opening and four times the finished

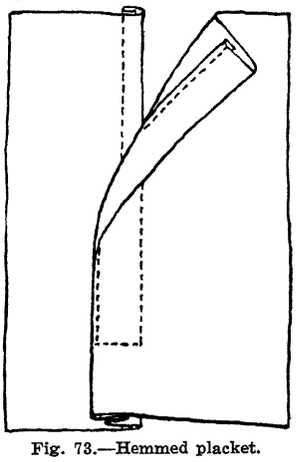


Fig. 73.—Hemmed placket.

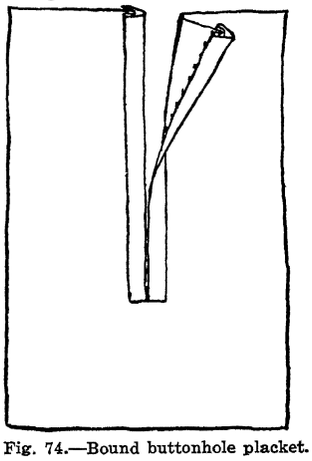


Fig. 74.—Bound buttonhole placket.

width plus four seam allowances. Mark center of this piece with a lengthwise crease. Place right side of binding piece against right side of garment, with center crease matching basting. Baste to garment on crease. Stitch a seam's width to one side of this basting and to within 1 inch of end of binding, turn at right angles and stitch across end twice the width of the seam. Turn at right angles and stitch along other side of basting. Each lengthwise stitching should be the same distance from the center.

Cut on center basting line to within ¼ inch of end of placket, then cut diagonally into each corner. The triangular piece thus formed should be turned down. Turn each side of the binding over the raw edges so that they meet in the center; baste. Finish raw edge of binding on under side by turning and hemming by hand (Fig. 74), or stitch as for single fold binding. On the under side stitch the remaining inch of fold which forms an inverted box plait to the triangular piece, close to the first line of stitching.

Use.—For neck and sleeve openings for dresses.

### *Shirt Sleeve Placket*

The shirt sleeve placket is a continuous bound placket. Cut placket opening required length. Cut binding on lengthwise thread of material twice the length of placket opening, and about 3 inches wide. Place right side of facing to wrong side of sleeve and sew together in a narrow plain seam.

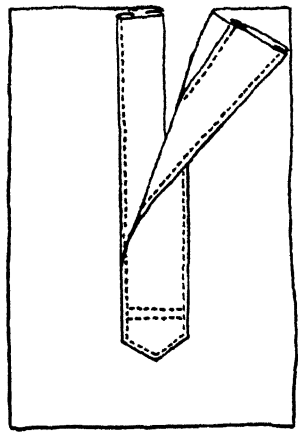


Fig. 75.—Shirt sleeve placket.

Place sleeve flat on a table right side up, fold the front of the sleeve back on itself in a line with the top of the placket opening. Fold the facing on line of stitching, back on under part of sleeve. Measure ⅞ inch over from the folded edge and cut facing this width from edge of sleeve to top of placket opening. At this point clip facing in ⅛ inch. Crease ⅛ inch turn to under side and baste facing to sleeve.

Drop top of sleeve in place and turn facing back to form upper part of placket. Crease a ¼ inch turn and baste top of placket to top of sleeve. The creased edge of top of placket must overlap stitched edge of under facing about ⅛ inch. Cut top of placket straight about 1¼ inches above end of opening. Turn corners under to form a point in center. Cut away unnecessary material, baste in place, and stitch close to edge of facing on all sides of placket. Stitch twice across top of opening about ⅛ inch apart (Fig. 75).

A placket similar in its right side appearance and called a two-piece "tailored placket" is made in two separate pieces. A ½-inch wide flat binding forms the under side and a 1½-inch flat binding forms the top of the placket. The top of the wider binding is cut to form a point in the center on the right side, which when finished extends about ¾ inch above the top of the placket slit.

Use.—For sleeve openings in tailored garments and men's and boys' shirts.

## Devices to Add Fullness

Fullness may be added to garments by one of the following devices: shirring, tucks, plaits and circular pieces.

### *Shirring or Gathering*

Shirring, or gathering, is made by hand or by machine. There are always several rows placed varying distances apart and parallel to each other. If made by hand use small running stitches (Fig. 76); if by machine, lengthen the stitch

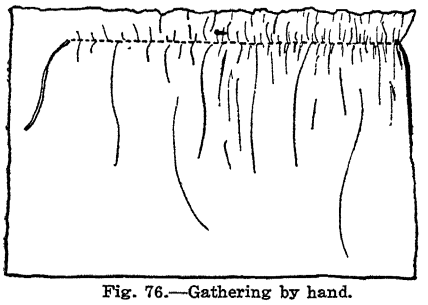


Fig. 76.—Gathering by hand.

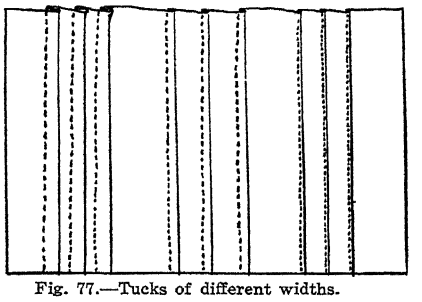


Fig. 77.—Tucks of different widths.

and loosen the uper tension. Allow about one and one-half times the width of the space for fullness.

Use.—For decoration and to add fullness to garments.

### *Tucks*

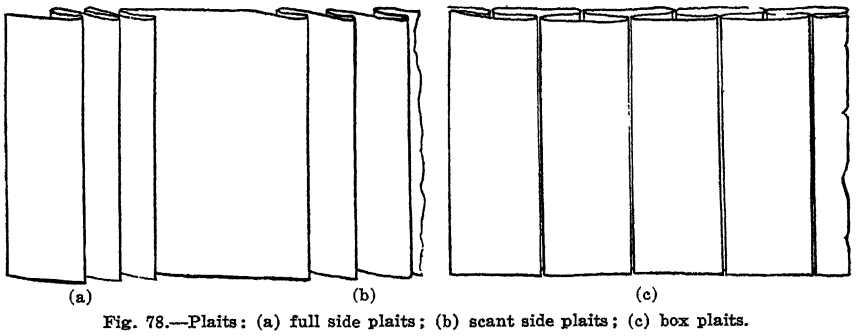
Tucks may be made on either the right or wrong side of a garment. The depth of a tuck as well as the distance between tucks should be measured and marked by means of a crease, tailors' chalk, basting, or tailors' tacks (Fig. 77).

A series of tucks may overlap, meet, or have spaces between them. They may all be the same length or of various lengths.

Use.—For decoration, and as a means of adding flat fullness to garment.

### *Plaits*

Plaits turning in one direction (Fig. 78 *a* and *b*) are of several different kinds, the most common of which are knife and accordion plaits. Plaits turning in opposite directions form box plaits (Fig. 78*c*) on one side of garment and inverted plaits on other side.



(a) (b) (c)

Fig. 78.—Plaits: (a) full side plaits; (b) scant side plaits; (c) box plaits.

Full plaits are those in which the fold on the upper side of one plait comes to and exactly meets the fold on the under side of the next plait (Fig. 78*a*). To plan for the correct amount of material for these allow three times the width of the space to be filled plus the seam allowance.

Scant plaits are those in which the fold on the upper side comes only part way toward meeting the fold on the under side (Fig. 78*b*). To plan for the correct amount of material for these, allow once the amount of material to exactly fill the space, plus twice the amount of each plant, plus seam allowance.

To have plaits hang well, cut and fold them on the grain of material. Before creasing plaits join all seams and baste the hem in place. Measure the depth as well as the distance between the plaits and baste. Plaits may be pressed, or stitched and pressed. The stitching may come either close to the edge, or back from the edge, depending on the effect desired.

Use.—Means of adding flat fullness to a garment.

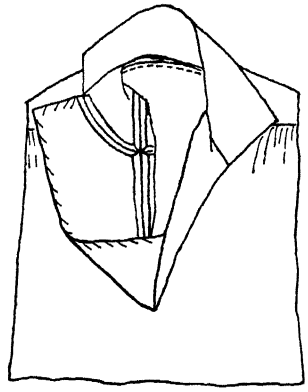


Fig. 79.—Convertible collar.

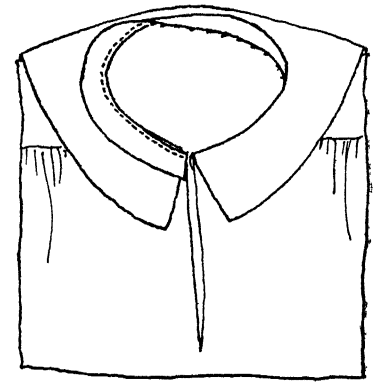


Fig. 80.—Non-convertible collar.

## Collars

From the standpoint of making and attaching collars, they may be divided into two general types: convertible and non-convertible.

1. *Convertible Collar.*—A convertible collar is finished so that it can be worn close to or open at the neck. It is a variation of a straight strip and is applied to a high natural neck line. It requires a front opening in the garment. The collar itself is double, and all raw edges are concealed within the collar and the facing so that the appearance is the same on the right and wrong side. The collar may be straight or it may have a concave or convex neckline.

To attach this type of collar, keep right sides of material together, join one thickness of collar to the facing with a plain seam, join second thickness to neckline of garment with a plain seam, baste these two pieces together all the way around, including the front opening. Stitch. Cut diagonally across each corner of collar before turning facing to under side. Baste all the way around the edge. Turn under remaining raw edge of collar at the back of the neck and hem, concealing all raw edges (Fig. 79). In case of heavy material, finish with a bias facing. Finish outer edges of front facing the same as for the faced placket..

2. *Non-convertible Collar.*—A non-convertible collar is finished so that it can be worn in one position only. It is a variation of a curved or circular piece, and is applied to a shaped neckline which usually varies from the natural throat line. It may take on a variety of different shapes on the outer edge, and may be perfectly flat or quite roling. The degree of roll depends upon the inside line—the straighter the line, the more rolling the collar.

This type of collar is usually attached to the dress by means of a bias facing. For a double collar, stitch the outer edges together, slash corners, cut diagonally across points, slash inside curve, or notch outside curve, depending on the design of collar used. Turn collar and baste around the outer edge. Pin the necklines of collar and garment together, wrong side of collar against the right side of garment. Baste the facing to the neckline of the collar, right sides together, allowing a little to project beyond the placket if a placket is used. Stitch. Turn facing (Fig. 80), and hem by hand as for a bias facing. A single collar is attached in the same manner. The outer edge is finished with a hem, binding or facing.

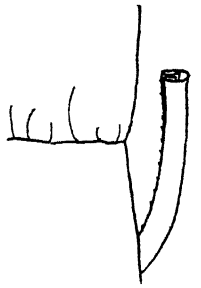


Fig. 81.—Straps of material for belts.

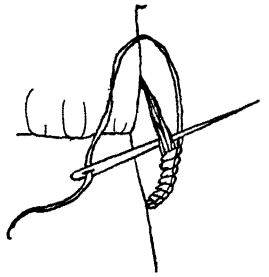


Fig. 82.—Thread loops for belts.

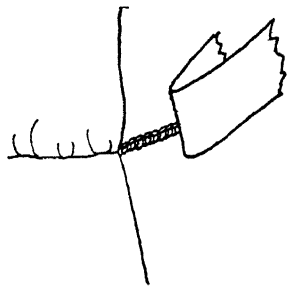


Fig. 83.—Sewing tacks or French tacks for belts.

## Attaching Belt to Garment

Belts may be held in place by several different methods.

1. *Straps of Material.*—Cut a strip of material as long as the belt is wide plus 1 inch, and 1 inch in width. Turn both lengthwise raw edges so they meet in the center of the strip on the wrong side of the fabric. Fold again through cented lengthwise, concealing raw edges. Stitch the two folded edges together. Fasten to dress by including the ends in the side seams (Fig. 81). One end should be fastened a little more than half the width of the belt above the waist line and the other end the same distance below it. The ends of the straps may be finished and the straps hemmed by hand or stitched by machine to the garment in the position described above.

2. *Thread Loops.*—Fasten threads at side seams half the width of belt above the waist line and extend them the same distance below waistline. The number of strands used will vary according to weight of thread and fabric. Buttonhole over these threads (Fig. 82), and fasten securely on under side. Thread loops may also be made by crocheting a chain a little longer than the width of belt. A long thread should be left at each end in order to fasten it to the garment.

3. *Swing Tack or French Tack.*—Make in the same way as thread loops with the exception that after belt has been placed in position, one end of thread is fastened to waistline and the other end to belt; the length of the tack is from ¼ to ½ inch (Fig. 83). Swing tacks are not confined to side seam only, but may be placed whether belt needs to be held in place.

●

## Fasteners

### *Worked Buttonholes*

*To Cut.*—Cut buttonholes by inserting point of scissors in fabric and snipping along a single thread. Buttonholes should be cut in the direction of the strain and long enough for the button to slip through easily.

*To Work.*—Hold slit over first finger of left hand with outside end of buttonhole toward the left. Be careful not to pull slit open. Insert needle at lower right hand end of slit. Fasten thread with a knot placed far enough to right that it may be cut off when work is finished. If material ravels easily make from three to five shallow overcasting stitches on each side of the buttonhole (Fig. 84A).

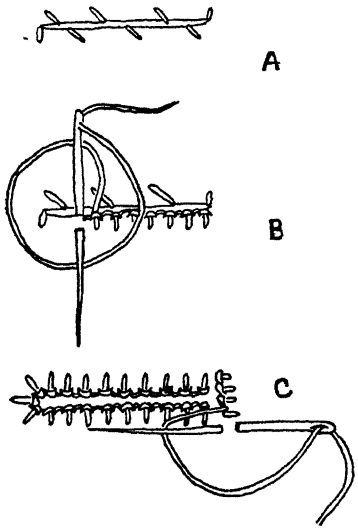



Fig. 84.—Steps in making a worked buttonhole.

Work near side of buttonhole first. Put needle through slit and bring out in cloth at right angles to slit; the depth of the stitch will depend on the material and size of the buttonhole. With the needle in this position, pass the double strand of the thread from the eye of the needle around the point from right to left (Fig. 84B). Draw the needle through the loop thus formed and pull thread tight. This places a purl on the edge of the slit. Make the next stitch close to the first one about the width of a thread from it, and continue across the lower side of the buttonhole.

*Fan Finish.* — Continue the buttonhole stitches, radiating them to form a fan at the end of the buttonhole; from three to five stitches will be required to make the complete turn. The center stitch should be continuous with the buttonhole slit (Fig. 84C, left).

Continue the buttonhole stitch along the opposite side and finish the inner end of the same fashion as described above, or with a bar.

*Bar Finish.*—Place two or three straight stitches on top of each other and as long as width of buttonhole. Blanket stitch these threads together, with purl of the blanket stitch toward buttonhole.

To make the blanket stitch place the needle under the threads forming the foundation for the bar. Place the thread from the last stitch under the needle and draw up the stitch. Cover threads with blanket stitches. The bar may be caught to the material in the center or left loose. Fasten the thread at the end by taking several running stitches back under the buttonhole stitches (Fig. 84C, *right*).

*Loop Buttonholes*

Loop buttonholes may be made of fabric covered cord or of thread. To cover a cord with fabric, cut a bias strip wide enough to cover the cord plus two seam allowances and the exact length required. Use cable cord of the desired size and twice the length needed.

Start covering the card in center. At this point sew fabric and cord together (Fig. 85A). Seam the two edges of bias strip together to include the cord, being careful not to sew through cord.

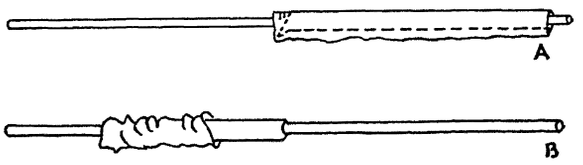



Fig. 85.—Covering the cord for loop buttonholes.

This may be done with a cording-foot on the sewing machine, or by hand, using the combination stitch. When seam is completed, fasten the thread securely. Trim the seam close to the line of stitching. Beginning at point where bias and cord are fastened together turn bias over on the uncovered half of cord (Fig. 85B). Cut away extra length of cord. Cut the covered cord into correct lengths for buttonholes. These lengths will vary with kind and size of button to be used. Try pinning them in place and slipping the button through to determine correct size. One-fourth to one-half inch will be required for seams. Shape the loop, allowing the diameter of the buttonhole between the sides of the loop. Place rounded end of loop toward garment and cut ends of cord in a line with cut edge of seam. Pin, then baste in place. Cover with facing and stitch a seam's width from edge (Fig. 86A). Turn facing on line of seam to wrong side of garment; the loops will now extend beyond the edge (Fig. 86B).

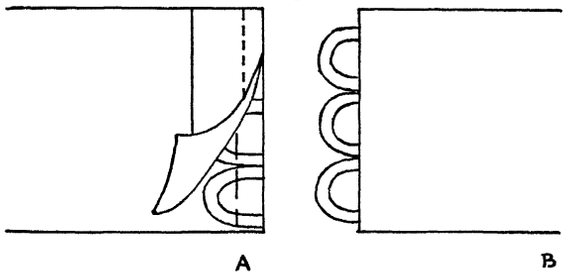



Fig. 86.—The loops are basted in place before facing in sewn on (A). The finished loops sewn on garment are shown in (B).

Thread loop buttonholes are placed on edges of hems or facings, and may be used instead of fabric covered cord ones. For method of making see "Thread Loops," page 43, and Fig. 82.

Use.—For garments when fastener may be placed on edge of opening.

*Bound Buttonholes for Light or Medium Weight Materials*

Locate position of buttonhole by creasing material or marking it with a basting thread or chalk line (see XY Fig. 87*a*). Mark the lines A and B so that they indicate the length of the buttonhole on the line XY.

Cut a piece of material to be used for binding about 1 inch longer than the desired length of buttonhole and about 2 inches wide.

Place binding strip on garment, right sides together so center of binding is on line XY, and extends equally beyond the lines A and B. Baste binding to gar-

ment along line XY, and stitch the width of finished binding from basting and squarely across both ends. This stitching should be the exact size and shape of the finished buttonhole (Fig. 87*b*). Cut on basting line within ¼ inch of stitched ends, then cut diagonally to corners of stitching (Fig. 87*c*).

Turn binding piece through opening to wrong side of garment, and crease against line of stitching so none of binding shows from right side. Fold triangular pieces at end of buttonholes away from opening (Fig. 87*d*). Fold binding out into the opening so edges meet in center. The seams may be included in the binding or they may be turned back. Small inverted box plaits are formed at the ends of buttohole on the wrong side (Fig. 87*e*). Baste diagonally across buttonsole opening to hold bindings in place for pressing. Sew plaits and small triangular pieces at ends of buttonhole together in a plain seam on wrong side, and press.

The raw edges of the binding of the buttohole may be finished by overcasting. In light weight materials, they may be turned ⅛ inch to the wrong side and stitched. If the buttonhole is to be covered on the wrong side by a facing, the facing is cut in line with the buttonhole opening and the edges turned and hand hemmed to the back of the buttonhole (Fig. 87*f*).

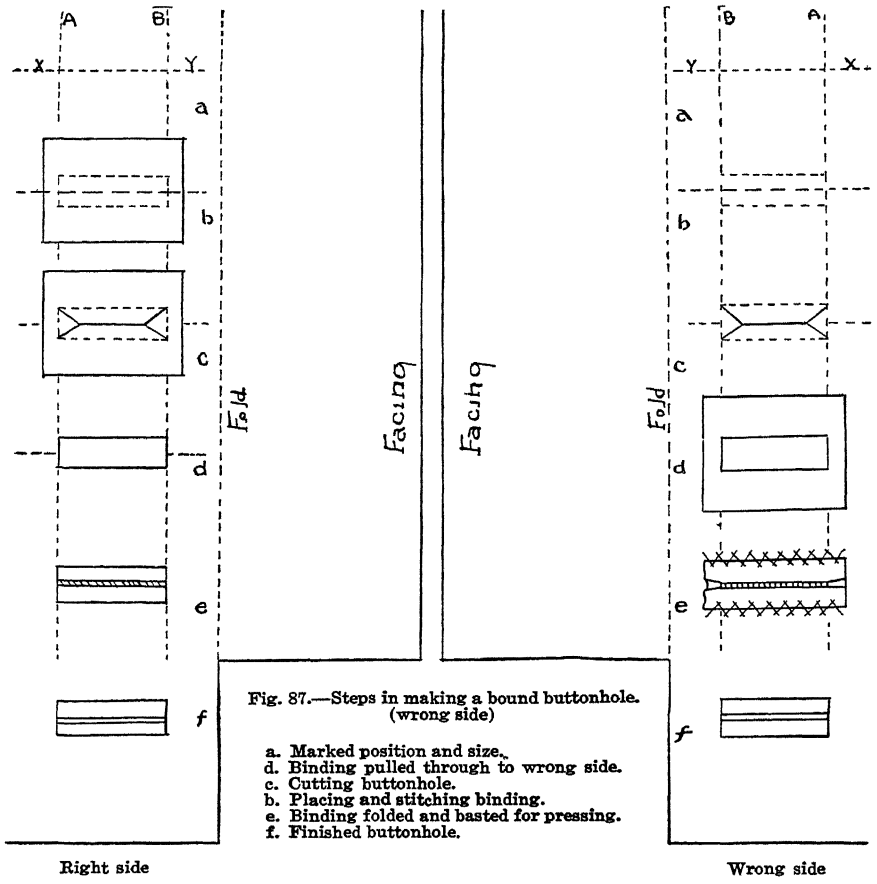



**Fig. 87.—Steps in making a bound buttonhole. (wrong side)**

**a. Marked position and size.**
**d. Binding pulled through to wrong side.**
**c. Cutting buttonhole.**
**b. Placing and stitching binding.**
**e. Binding folded and basted for pressing.**
**f. Finished buttonhole.**

*Buttons*

To mark location of buttons pin lap in position; place pins in the underlap through the buttonholes from the right side. If there is to be a strain or pull on the opening, place the button at the end of the buttonhole nearest the opening. If there is to be no strain place the button in center of buttonhole.

Sewing on Buttons. — Use a double thread or heavy single thread. Conceal several back stitches under the button. Draw the needle through the button. Place a pin across the top of the button, and take the stitches over the pin. The stitches should be parallel with the buttonhole slit if a two-holed button is used. The threads may form a cross, two parallel lines or a fan if a four-holed button is used (Fig. 88).

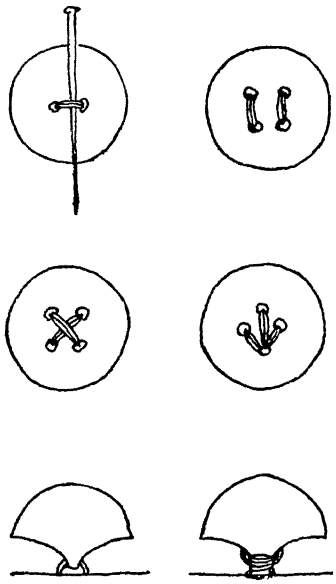


Fig. 88.—Sewing on buttons.

Sew the button on securely. Remove the pin—this will loosen the stitches. Bring the needle out between the button and fabric close to the center of the button. Wind the thread tightly around the threads three or four times, to form a shank, thus allowing room for the thickness of the buttonhole. Stick through to wrong side, and fasten the thread under the button.

*Snaps*

Sew with several over-and-over stitches or blanket stitches taken in each hole from the edge of fastener to the material (Fig. 89). In crossing from one hole to the other take a stitch in the fabric, bringing the needle up from the under side of the next hole. Snaps are used where there is no strain and a flat fastening is desired.

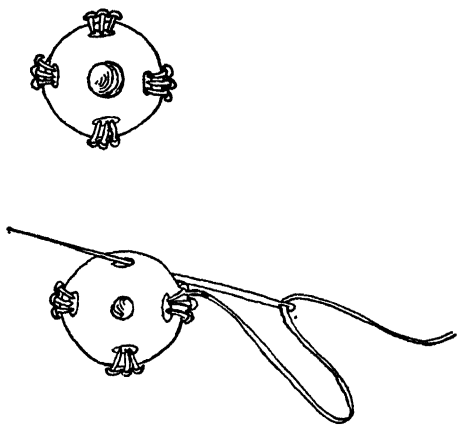


Fig. 89.—Sewing on snaps.

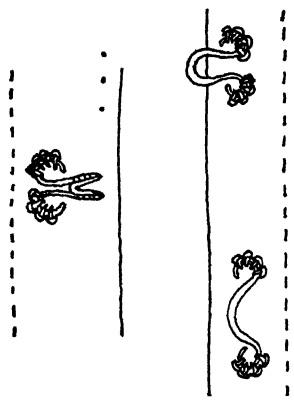


Fig. 90.—Sewing on hooks and eyes.

### *Hooks and Eyes*

Place the hooks on the right side of the opening and the eyes on the left, each far enough back to prevent them from showing when the garment is fastened. Sew around circular end of both hooks and eyes with over-and-over stitches or blanket stitches. Tack across ends of hooks and side of eyes to hold them firmly in place (Fig. 90).

●

## Pockets

The two types of pockets most commonly used for light and medium weight fabrics are patch and set-in pockets.

### *Set-in Pockets*

Mark position of pocket as for bound buttonhole. The average pocket is about 3 inches long, but will vary with its location and the design of garment.

Cut material for pocket 2 inches wider than finished pocket is to be and twice the depth of pocket plus 2 inches. Place right side of pocket against right side of garment, and the upper edge of the pocket 1½ inches above the line which marks position of pocket.

Stitch the width of the binding from both sides of the basting and squarely across both ends. This stitching should be the exact size and shape of the finished pocket. Cut on basting line, leaving small triangles at ends.

Turn pocket through to wrong side, folding as for bound buttonholes. Fold pocket strip through center, and baste raw edges together at top of pocket. On the wrong side stitch triangular piece and inverted box plaits together. Continue line of stitching to close sides of pocket and across top. If right side stitching is desired around binding it must be put in before pocket piece is turned and stitched. If no stitching is to show from the right side the binding may be stitched to the seam allowance.

### *Patch Pockets*

To make a patch pocket cut the pocket pieces the desired size and shape allowing for seams and finish at the top. This top finish may be a hem, facing, or other edge finish in keeping with the rest of the garment. If the pocket is hemmed or faced at the top this is done first. Then the under side of the hem or facing is cut about 1 inch at both ends and about ¼ inch above the stitching and parallel to it.

The raw edges of the sides of the pocket are then turned the desired width to the wrong side. This turn continues along the back of the hem or facing to the slash. The turn on the back of the hem or facing should be slightly deeper than on the right side so that it will not show when pocket is stitched to garment. Crease a turn to the wrong side of the end of the pocket. Press with a warm iron.

If the pocket is curved, notch the curved seam. If the pocket is square, cut out or miter the corners at the lower edge to remove bulk.

Pin pocket on garment and stitch close to the edge. Double stitching ⅛ to ¼ inch apart may be made across the width of the hem or facing, or all the way around the three sides of the pocket.