

CHAPTER XIV

GARMENT CONSTRUCTION

A costume or garment is constructed by cutting the fabric into parts according to a pattern which fits the human form; then the different parts are joined together by sewing.

The average business woman purchases her clothing ready-made. A half century ago clothing was made by dressmakers. Since women have gone into business, home sewing has nearly disappeared because women have a feeling that they can buy their dresses ready-made for less than the cost of materials at retail. Hence, there has developed the great business of making and selling women's ready-made clothing.

Statistics show that until 1920 the sales of ready-to-wear merchandise were about equal to the sales of goods by the yard; but since 1920, the buying trend has been decidedly in favor of the ready-made and decidedly against the piece materials.

There is a large number of women in small communities, and in larger communities a similar class of discriminating women with limited incomes, who are not and cannot be satisfied with the ready-to-wear apparel which is within their means. Many mothers living on farms, in villages, and towns are making different kinds of garments at home for the various members of their families. Home sewing is chiefly devoted to certain garments — house dresses, summer wash dresses, aprons, and nightgowns.

The larger the community in which a woman lives, the less sewing she is likely to do. Even the ownership of sewing machines falls off as the community grows. But the size of the family and its income generally determines the number and kinds of garments made at home. The largest percentage of women making the most of the garments listed are in families

with \$2000 to \$2999 annual income. Despite difficulties in fitting and in obtaining becoming and practical designs, home sewing is pursued because of economy.

Those engaged in making their own clothing should know the methods of making apparel and the principles underlying its construction. Training centers should know the most economical methods of teaching the home-dressmakers how to produce stylish and sensible apparel.

Relation between Style and Costume. We have seen in a previous chapter that the creating of clothes is an art that requires much skill. It involves a study of the human figure, as a knowledge of its lines is necessary in order to correlate them with the lines of one's dress. Years ago, people wore clothes because style dominated the situation, but today one dresses for individuality — to make one look attractive. We now choose clothes that have both style and individuality.

The thought that should influence a dressmaker or designer is how to make the wearer more beautiful. In planning a costume we should consider it as a whole; that is, first the kind and type of dress for the wearer, then the details of the design, trimmings, etc., in relation to the whole. This carries out the idea of proportion in the parts and the whole, but the similarity of parts should not be such as to make it monotonous.

If we look carefully at a costume, we shall find two distinct outlines: (1) the outline of the whole, sometimes called lines of the costume, which form the *structural design*, and (2) within the dress other smaller outlines or lines formed by the collar, panels, yoke, vest, tucks, and other trimmings, which we call the *decorative design*. While the outline of the exterior of the costume changes, influenced greatly by style, the trimmings are little influenced by fashion. So that, regardless of the general style, we can always use trimmings so as to make the dress more becoming to our figure.

The parts or divisions of the costume should be placed in relation to the structural parts or areas of the body.

The decorations should be placed at points of support or of articulation of the body.

Decorative design is the enrichment of structural design, and should naturally grow out of the structure and seem to be part of it. It is very desirable that the design should be conventionalized and reserved.

Designing. Designing of clothing may be done in one of three ways: (1) making drafted patterns, (2) draping on the form in muslin or paper, (3) modelling on the living or dress form (without cutting) the material that is to be used.

Patterns. Patterns fall into two classes — drafted and commercial or stock patterns. Drafted patterns are made to order, using the individual's measurements. Commercial patterns are manufactured by pattern companies such as McCall, Butterick, Pictorial, Excella, Vogue, and others.

Commercial Patterns. Clothing made at home is usually constructed from commercial patterns. These are made as follows:

(1) Experts and stylists select 15 or 20 out of a number of costume illustrations for sizes 14-16, and 36, 37, 38, 39, and 40. Sizes of misses are expressed in ages, while the style sizes of matrons are expressed in inches.

(2) Then the costumes for the illustrations selected are made on the forms in unbleached muslin (construction 72×72) that will not stretch.

(3) After the costume has been made on the form, marks and notches are placed on the muslin.

(4) The costume is then taken apart and laid on a table and a pattern cut for it on specially stiff, thick manila paper.

(5) From this stiff manila paper pattern, called the master pattern, tissue paper patterns are cut.

(6) Then from the master draft or pattern other sizes are graded. There is a definite relation between the parts of the body in a normal figure. The measurements of the adult, normal woman's figure are fairly constant, and there is a definite relation between them, excepting the width of bust and the length of the back. If we know the width of the bust and the length of the back, the other

dimensions of the normal figure may be determined from the following equations:

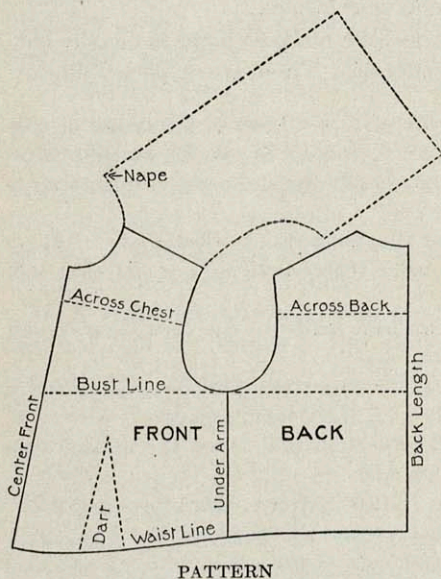
- | | |
|--|--|
| 1. Waist circumference | $\frac{5}{8}$ of bust circumference |
| 2. Width across $\frac{1}{2}$ of back | $\frac{1}{5}$ of bust circumference plus $\frac{1}{4}$ " |
| 3. Width across $\frac{1}{2}$ of chest | $\frac{1}{5}$ of bust circumference |
| 4. Height of back shoulder line | $\frac{7}{8}$ of back length |
| 5. Height of front shoulder line | Equals back length |
| 6. Underarm | $\frac{1}{2}$ of back length |
| 7. Nape to front waist | Equals back length plus $6\frac{1}{2}$ " |
| 8. Throat to front waist | Equals back length plus $\frac{1}{2}$ " |
| 9. Height of darts | $\frac{2}{3}$ of underarm — measuring up from the waistline. |

The above relations or formulas or equations are used in grading patterns. For example, if one has the measurements of a normal 36, then the measurements for 38 may be obtained from the above equations.

The disadvantage of a commercial pattern from a style or artistic point of view is that it is not original, and there are many copies. However, provision is made in many patterns for changes to meet the needs of the individual.

In selecting a pattern we should choose very carefully, considering (a) the use of the garment, (b) figure, (c) age, (d)

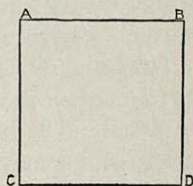
size, (e) material, (f) cost, as described in the previous chapters.



Before cutting a pattern in material, pin up the pattern and test it, planning for all alterations in it before cutting, then consider the number of pieces, seam allowances, notches for joining, perforations indicating grain, etc. The directions and diagrams on all patterns now show the most economical way of cutting the material, and it is wise to follow them.

Drafted Patterns. Most manufacturers of medium-priced clothing design by means of a pattern or draft. In preparing a drafted pattern it is the usual practice to represent the fabric by a rectangle, thus:

This rectangle or field is lettered *A, B, C, D*, in which *AB* represents the selvedge. The lines *AB, BC, CD,* and *BD* are called *construction lines* and are used as a basis for most of the measurements of the draft. Within the rectangle, the lines of the garment are made, that is, lines for cutting the fabric into parts are marked. Sometimes the lines of the rectangle are black and the lines of the garment are of a different color — red or blue.



The lines or outlines of the parts of the garment are marked in the rectangle and called a *draft*. The draft shows the (a) form of the garment, (b) exact amount of material, (c) direction of the selvedge, (d) different measurements from point to point, (e) fold of the material.

The pattern is different from the draft because it is a model (in either paper, muslin, or other cheap material) of the garment. The pattern may be in the flat, like a paper pattern, or it may be made up by means of tacking or pinning, in order to give a better idea than in the flat of the appearance of the garment, and also to show how the different parts of the garment are put together. The pattern should be handled very carefully and folded properly when not used.

Every season the manufacturers obtain a series of measurements for making a normal costume of this kind. These

measurements are decided by the manufacturers after careful investigations of the style tendencies and measurements of the normal figure. These measurements are placed on manila paper and cut into sections corresponding to the cuts of the fabric to be made into a costume. Then many layers of cloth are placed together with the pattern on top and the fabrics cut by an electric knife. Great care must be exercised in placing the pattern so as to obtain the largest number of cuttings from the width of the cloth.

Then changes are made in the pattern for the abnormal figure, such as the short, stout figure, by either adding to or reducing the size of the pattern. Such a method is called the block system of garment designing.

Draping. The third method of making costumes is by draping. Before describing this method it may be well to describe draping in detail. The history of costume in previous chapters shows that clothing may be either held off from the body, as in the case of hoop skirts, or allowed to hang by its natural weight over the body. The latter is called draping. The former method is desirable when the style calls for a special shape for the clothing, that is, when it does not conform to the artistic shape of the human form.

The method of draping is used when we wish to bring out the artistic side of the human form and also increase its attractiveness by beautiful folds and curves in the cloth as it flows over the form.

We know that costumes may be made very artistic by allowing the fabric to hang naturally and gracefully. The art of draping comes to us from the early Greeks, and this type of dress shows the human form to best advantage.

The supports of clothing for draping are of two kinds: the principal and secondary supports. The principal support is one from which the drapery hangs, such as the shoulder. A secondary support is one produced by a projection or eminence of the body which tends to push the drapery out, more or less.

The way a fabric drapes on the human figure is governed by the number of folds, which depend in turn on (1) the method of arranging the cloth and (2) the kind of support given, but chiefly (3) on the texture of the fabric itself. To illustrate: A stiff or thick cloth like taffeta will, of course, give broader masses and duller and fewer folds than a light silk fabric like crepe de chine.

Fabrics may drape in either long folds, few in number, which will give single lines, or in many folds, which will give irregularly waved lines more nearly parallel in direction.

Draping is an art. A drape may be at the (a) back, (b) front, (c) side, etc. A drape at one side of the skirt broadens the silhouette and gives an unbalanced effect which causes us to overcome the effect by another drape on the other side. If there are too many drapes we fill the silhouette. A drape in the back suggests a bustle effect.

In draping it is wise to do as follows:

1. Determine the style tendency and adapt it to the requirements of the person, place, and time for which the garment or costume is desired. This requires that the outline and line of the costume with trimmings must be considered very carefully. A sketch or design should be made showing the costume.

2. Choose fabrics and materials that will give the desired fullness or softness, etc., as required by the style. If a heavier or more wiry fabric is used, a clumsy effect will be produced. On the other hand, a fabric too thin or soft will also give unsatisfactory results.

3. Then drape the costume either in muslin or the material that is to be used on the form.

4. The material in muslin should be marked carefully with notches so that the fabric of the costume may be cut.

Types of Forms. Patterns are made for model figures, hence we should bear in mind the difference between the form and the model pattern and make proper allowances. There are a few fashion-plate models, and they average about 5'8" tall, and are

graceful and attractive in appearance. This type is the ideal from an artistic point of view, and most clothing is designed for this figure and, of course, becomes the fashion figure. Then there are some people tall and slender, others are tall and broad, and many are tall and angular, that is, with pointed features. On the other hand, we find a great many who are short in stature, with a stout figure, while others are short and thin.

To summarize, adult figures may be divided into the following types:

I. Fashion Plate Figure. — Tall and well-proportioned, about 8 heads in height.

II. Ideal or Average Type. — Fairly tall and well-proportioned, about $7\frac{1}{2}$ heads in height.

III. Tall Type. — (a) Tall, thin, (b) tall, stout, (c) tall, angular.

IV. Short Type. — (a) Short stout.

1. Short, with large bust and small hips and waistline.

2. Short, but stout all around.

3. Short, with flat bust and large waist line.

(b) Short thin.

V. High School Type (16 to 18 years of age) — About $6\frac{1}{2}$ heads in height, with girlish proportions — limbs and bust slightly developed.

While most people can be classified in the types described above, each type may differ, due to (a) flat or stout bust, (b) large or small abdomen, (c) large or small hips, (d) square or sloping shoulders, (e) long or short waist. These differences should be considered carefully when a costume is to be chosen, for in many cases these characteristics are accentuated to such a degree that the wearer will appear out of proportion.

Signs of Normal Costume. Each age period has an appropriate style, and for a person of one period of age to attempt to wear a costume designed for a person older or younger will not be to her best advantage.

Normal costumes are classified as follows according to the measurements of the normal figure at the period:

Infants,	Age 1 to 6
Intermediate,	6 to 10
Children,	10 to 16
Junior,	13 to 19
Misses,	14 to 20
Ladies,	any one with bust 36 to 46

Standard Form. The history of costume shows that the prevalent physique in any period is likely to be the artistic ideal of beauty at that time. Arguing from the art productions in our museums and galleries, one can say with much confidence that there are more slender women in the world today than ever before. One can even assume that they are in the majority and have impressed their type firmly upon the consciousness of all civilized mankind.

The human race is without question undergoing a physical change which enables people to retain their youth much longer than was formerly possible. A generation ago, girls were never supposed to wear a dress of originality or particular distinction. But today girls, or rather, women who are carrying their girlhood into their later twenties, constitute an important class with which the creative dressmaker has to deal. Because this increasing youthfulness of the world is making such an impression on the minds of mankind, the slender figure has become the criterion.

Dress designs can accentuate almost any physical peculiarity desired. Today we have one of the few silhouettes known in fashion history that emphasize slimness. Nearly all the styles of the past have been "buxom" styles. All the lacing, the bustles, the big sleeves, etc., of the Victorian era were dress devices to emphasize a generous build.

In 1930 it is just the other way. The dress silhouette which is most successful is the one which best accentuates slenderness in the slim and creates the illusion of slenderness in those figures which need modifying in order to attain the present-day ideal.

What constitutes a perfect feminine figure? The ideal figure differs for different periods of growth or age. First, there is the flat, boyish figure that is normal to girls in their early 'teens, sometimes spoken of as junior style or form. Then there is the slender, girlish figure that reaches its perfection in the late 'teens or early 'twenties, called misses' style or form. In this type, the bust and hips measure the same. The height is usually from 5 feet, 4 inches to 5 feet, 6 inches, and weight from 120 to 130 pounds. Other physical specifications are: Neck, $12\frac{1}{2}$ or 13 inches; bust and hips, 34; waist, 26; thigh, 19 to 20; wrist, 6 to 7; ankle, $7\frac{1}{2}$ to 8; calf, $13\frac{1}{2}$.

The figure of the mature young woman is naturally more developed than either of the two immature types just described. She has more right to claim the title of "perfect" than they have because her development is complete. Her bust measure ranges from 34 to 36 inches, and her hips are two or more inches larger than her bust measurement. The "perfect 36" is an example of this full-blown type of beauty. The measurements of this type are: Height, 5 feet, 5 inches; neck, $13\frac{1}{2}$; waist, 26 to 28; hips, 38 to 40; bust, 36 to 38; thigh, 23; calf, $13\frac{1}{2}$; ankle, $7\frac{1}{2}$.

Overcoming Defects. The following suggestions will show how to appear normal in form. Persons with tall figures desire to look normal, or shorter than their actual size. In order to do this, their clothing should give an after-image of shortness and increase the width of the body. It is possible to make this type appear of average proportion by emphasizing horizontal lines and eliminating vertical lines in both the construction and decoration of the complete costume.

Ruffles, flares, shirring, etc., will add to the width and conceal the spareness of the figure. A small hat will tend to increase the height, hence large hats should be worn. Two-piece effects in dresses will tend to make the figure appear shorter.

The tall thin type is (a) taller than the standard figure, giving the impression that the head is too small for the body, (b) the horizontal measurements are less than standard, (c) the vertical measurements are greater than standard, hence one appears

awkward. It is possible by clothing devices to make this type appear shorter and stouter and approach the normal figure.

Look at the short thin figure and notice that she is (a) shorter than standard height, (b) the horizontal measurements are less than normal, (c) the vertical measurements are less than normal. This type, due to the small measurements and a normal head, gives the impression of a very large head. In order to take advantage of the smallness, the daintiness of delicate fabrics, colors, and trimmings should be the key-note in all her clothing.

The following devices will overcome the defects of the short, thin figure by giving an after-image of length and width, thus giving the impression of being taller and stouter:

- a. Short, rolling collars, giving long lines.
- b. One-piece dresses which fit loosely.
- c. Vertical lines in panels and trimmings, which give both apparent length and width to the figure.
- d. Materials of moderate stiffness, those of high luster, and plaids and large-figured designs.

The tall, stout figure will naturally command attention, hence, she should cultivate fine manners and speech in order to have dignity and poise. It is not desirable to attempt to make her look smaller to any great degree, but rather allow the tall stout form to remain and use the type of clothing suited to stateliness. Neatly tailored frocks, with vertical lines, will bring out poise and dignity. In addition, the principal clothing devices that will do this are:

- a. Proper length of skirt — not too long or too short — so as to prevent one from appearing ungainly.
- b. Youthful clothing will not add to form.
- c. Heavy, rich fabrics, both napped and smooth, may be used.
- d. Distinct fluffy trimmings do not belong to the large, but to the small woman.
- e. Both vertical and horizontal lines may be used.

Look at the short, stout person and notice that (a) the height is shorter than normal, (b) the horizontal measurements are greater than standard, (c) the vertical measurements are less than the standard. Since the difference from the standard is due to greater thickness and bulk of the form, this type is difficult to make appear normal with clothing devices.

The following devices should be used:

- a. Vertical lines, to give an after-image of elongation.
- b. Since the body is bulky, attention should be drawn away from it and to the normal part of the figure — head and form — by lines, colors, etc., and proper headdress.

The short, stout figure is under the normal size and is about 5 feet, 4 inches in height. The hips are larger and the waist shorter in proportion to the size. The short, stout styles are found most often in women of advanced rather than early years. Sometimes the shoulders are round and the bust flat and the abdomen large. The short, stout sizes are as follows: 37, 39, 41, 43, and 45.

The half-size styles are designed for women of smaller size, built like the misses' figure, but with larger hips and arms. The half-size figure is about 5 feet, 3 inches in height, with larger hips and shorter waist in proportion to the height. The half sizes are as follows: $14\frac{1}{2}$, $16\frac{1}{2}$, $18\frac{1}{2}$, $20\frac{1}{2}$, etc.

The length (seven heads) and measurements of the high-school girl (the adolescent period) is smaller, particularly at the (a) hips, (b) bust, and (c) shoulder, than the mature figure of the woman. In fact, the dimensions of the shoulder of the high-school girl are larger than the hips, but as she develops the hips become greater in width than the shoulder.

Defects in Type. We mentioned above that each type may have a defect or weakness that must be corrected. To illustrate: The flesh is often unevenly distributed over the body, particularly the bust, hips, and abdomen. If there is a scanty distribution, then the bust appears flat, while if there is an

overabundance, we have a "full bust," large abdomen, and large hips.

These defects may be corrected as follows:

a. Ruffles and other trimmings that will increase the fullness of the waist, will give an added fullness to the bust.

b. The large bust may appear smaller by proper use of lines and panel effects that give an after-image of elongation at the bust.

Sloping and Square Shoulders. In order to overcome the sloping defect, clothing devices should be used to bring up the tip of the shoulder and make it appear square.

The shoulders of many people are frequently very prominent, due to either a pronounced projection or a prominent squareness. Round-shouldered form is applied to those with shoulders that slope or project; persons with a long, thin neck will usually have round shoulders. Square-shouldered is applied to those whose shoulders are very prominent, with a distinct square effect.

Since the shoulders occupy a conspicuous part of the form, these defects should be corrected by the following clothing devices:

a. Properly cut — that is, the appropriate cut for sloping shoulders — collars, capes, etc., will modify or counteract the appearance of the sloping line of the shoulders.

b. The prominent line of squareness of the shoulder can be corrected by loosely fitted drop shoulders (such as raglan sleeves), which tend to bring down the tip of the shoulder.

The Waist. Quite often the proportions of the back and legs are not normal. That is, the back may be too long in proportion to the legs, giving a long-waisted effect, or the back may be too short in proportion to the legs, giving a short-waisted effect. Clothing devices may remedy the above variation; for the short-waisted, by giving an after-image of extension from the skirt to the waist by the use of panels.

The long-waisted effect is corrected by raising the waistline and letting the skirt hang smooth and straight, and by creating after-images of elongation in the skirt by vertical trimmings.

Special Defects. The following modifications of clothing may be used to correct special defects:

a. For the long-waisted figure wide belts and sashes should be used, and a wide belting on the skirt. Horizontal lines emphasized on the waist will give a good effect, and the waist should be full in cut, with yoke, bertha, or broad collar.

b. The short-waisted type of figure should avoid a waist and skirt of contrasting color and material. One-piece dresses are preferable, and a vertical effect in the blouse, produced by using panel effects, seams, trimmings, and long collars will help to minimize the defect. Narrow waistline finishes are also becoming.

c. The woman with large hips should use a one-piece dress, belted loosely at the waistline. The waist may be slightly bloused if it is narrow in proportion to the hips. Pockets, trimmings, fullness, etc., should be avoided, as they add bulk at the hip line. Coats and peplums which end at the hip line and skirts that are too low are also unflattering to this type of figure.

d. A large bust may be modified in line by a low-bust corset and brassiere, and by breaking up the blouse of the costume by use of a surplice closing or by a vest.

e. For the flat chest broad collars or berthas, fichus, and fluffy fronts in blouses are used.

f. Round shoulders may be made to appear "square" by avoiding cape collars and those that give a round effect, and by placing the shoulder seam a little back of the normal shoulder line. Square shoulders may be softened by the use of round necklines or rolling collars, rather than square necklines and those with angular lines. Kimono sleeves and drop-shouldered effects also tend to lessen the angles.

g. Short, fat arms appear to better advantage in long sleeves which fit easily over the arm, or, if shorter ones are desired, they should cover the elbow. For long, thin arms one should choose sleeves that are full or flaring, and sleeve lengths that are broken by cuffs or horizontal trimmings.

h. The long, thin face and neck are flattered by broad necklines, rolling or high collars, and scarfs and furs that tend to shorten the neck. The hair should be worn rather low, and one should select hats which turn down.

i. The woman with a broad face and short, thick neck should wear collarless dresses, V- or U-shaped necklines or angular lines, hair rather high on the head, and hats which are not too broad and that turn up slightly to add height.

j. The following devices will overcome the defects of the tall, slender figure by giving an after-image of width that will make one look shorter: (1) Broad collars, yokes, and frills, (2) full and flaring sleeves, (3) wide belts and decoration at waistline, (4) overblouses and peplums, (5) full blouses and full skirts, (6) stiff materials, (7) double and triple skirts.

k. The following devices will overcome the defects of the tall, broad figure by not calling attention to the size of the form: (1) Long collars and surplice styles, (2) narrow belts, (3) sleeves that fit easily, (4) soft, inconspicuous belts, (5) decorations should be kept toward the center of the figure, (6) vertical lines, (7) soft materials.

l. The following devices will overcome the defects of the tall, angular figure by giving an after-image of fullness: (1) Rolling collars with round lines and those that do not reveal the bones in the neck, (2) loose sleeves, (3) curved lines in the costume which soften the straight, severe lines of the figure, (4) materials of moderate softness, (5) dresses that are not perfectly flat and tight across the bust.

m. The following devices will overcome the defects of the short, stout figure by giving an after-image of lengthening and therefore making one look taller: (1) Flat, narrow collars or no collars, with U-shaped or V-shaped neckline, (2) surplice style, (3) long tunics, (4) one-piece dresses, (5) long, plain-fitting sleeves, (6) straight, vertical lines for costume and decorations within it, (7) narrow, inconspicuous belts, with waistline broken by vest or panel effect, (8) materials that are soft, full finish, and plain color, (9) neutral colors, (10) long strings of beads.

How to Cut Cloth. After the design has been made, the cloth should be prepared for cutting. The cloth may be cut or folded (a) lengthwise, (b) crosswise, or (c) on a true bias.

A piece of cloth is laid out very carefully by the mill designer to conform to certain specifications. While cloths may differ in

details, the general structure of fabrics follows a uniform plan. To illustrate: All fabrics are finished at the outer edges with a woven border called a *selvedge*.

The warp thread is stronger than the filling, because there is more twist in the yarn. Since there is more "pull" in the length than in the width of fabric, the warp is placed so as to support the additional pull. The filling threads, having less twist than the warp threads, are more elastic, and will stretch.

Material is not cut crosswise, because the fabric is more elastic crosswise than in any other direction and will naturally stretch out of shape.

The selvedge threads should be removed from the fabric before cutting it for the garment, otherwise the garment will have a puckered appearance, due to the fact that the threads of the selvedge are more closely woven than the rest of the fabric. The reason the selvedge is more closely woven is to withstand the strain of holding the fabric under tension while it is passing through the steps of manufacturing.

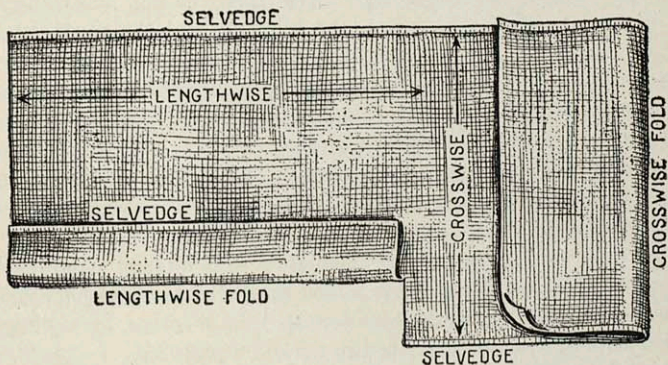
Patterns or parts of fabrics that are expected to fit tight, as the seat of the trousers, neckbands, etc., and yet must have elasticity, are cut on the diagonal direction of the length, called the *bias*. The strength of the bias pattern is not quite as great as that cut on the length, but it has more elasticity, due to softer twist in the filling; hence is strong, yet has considerable elasticity or "give" — stretch.

Grain of Cloth. In finishing the manufacture of a fabric it is brushed or ironed in the direction of the length, consequently when stroked in one direction it will appear or feel different from what it would if stroked in the other. When it feels smooth, the hand is said to move "with the grain"; the reverse direction is called "against the grain." A fabric has two sides: right and wrong. The right side has been finished; that is, it is the side of the fabric that has come in contact with finishing machines.

Care of Materials in Cutting. There are certain fabrics like broadcloth, velvets, etc., that have a distinct nap or pile. In cutting a costume or suit out of these fabrics, it is necessary to have the pieces put together so that the grain will run in the same direction, otherwise the pieces will show different shades, due to difference in reflection (luster).

In panne velvets, in which the pile has been flattened, the nap should lie down. Broadcloths should have the nap running down, otherwise it will roughen in wearing. Some velvets have a straight pile. These must all be cut the same way.

Other nap or pile fabrics should be cut with the pile running up, so that the whole richness of color will be brought out. Sometimes it is possible to have attractive effects by combining two pieces of fabrics with different grains.



LENGTHWISE AND CROSSWISE FOLDS

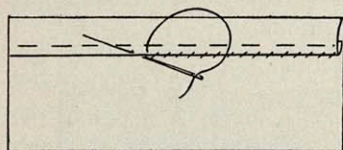
Unless the fabric is cut with reference to the grain, the finished garment will not be perfectly balanced. If, instead of folding the material directly on a lengthwise or crosswise thread, it is folded slightly on the bias, or carelessly folded, the center front or back will always twist to one side.

Attention must be paid to the pattern or design of the cloth.

Plaids may have up and down or right and left stripes. Stripes may vary in arrangement. Floral designs may be found running in one direction and are naturally placed growing up.

Some materials, like chambray and plain taffetas, are woven with no distinct right or wrong and no distinct up and down. The sheen may be different, so care must be taken to place all pieces on the same side.

Silks and woolens, when folded, are folded with the right side inside the fold. When they are not folded, the inside of the bolt is the right side. Cottons and woolens when folded are folded with the right side out. When they are not folded the right side is out. The selvedge is smoother on the right side than on the wrong side. In twilled materials, such as serge and diagonals, the twills run downward from left to right on the right side of the materials.



HEM

The fabric is cut according to the pattern, and the rough edges hemmed to make them attractive, and the parts are held together by seams involving the use of stitches.

Torn Cloth. When cloth is torn or cut, there are usually loose threads projecting from the cut portion of the warp or filling, and this makes the cloth unattractive. The cut or torn edge is called the raw edge of cloth. In order to make the edge attractive, it is folded over very evenly from one-eighth to a quarter of an inch. This portion of the cloth that is folded is called a *hem* (see page 355). The junction of the two pieces of cloth held together by sewing is called a *seam*, which is described in detail on page 361.

A *plain seam* is usually used in joining pieces of cloth for dresses and aprons and consists of joining two raw edges with a row of stitching. This stitching is carried a definite distance from the edge of the cloth.

A *French seam* is used for underwear, lingerie, and waists, and is so folded that the raw edge is covered.

Equipment. The equipment and supplies used in making a costume are (a) thimble, (b) scissors and shears, (c) tape-

line, (d) pins and pincushion, (e) emery, (f) tailor's chalk, (g) needles, (h) yard stick, (i) dress forms, (j) tailor's squares, (k) tracing wheels, (l) iron, (m) ironing board, (n) sewing machine. Other supplies convenient for the work-bag are stiletto for making eyelets and bodkins for inserting ribbons in garments.

Thimble. A covering for the protection of the finger in the operation of sewing, of various forms, has been in use since the times when needlework first began to develop into an art. In very early times this protection consisted of stiff, heavily-sized linen wrapped around the finger, and was called a *finger linge*.

Thimbles have been discovered in the Egyptian catacombs in mummy cases antedating the Christian era fifteen to eighteen centuries. Consequently how old the thimble is, or by whom it was invented, are questions that can never be answered.

In the ordinary manufacture of thimbles at the present day, thin metal plates are placed in a die and punched into the proper shape. Dies of different sizes are used. The thin plates of sheet iron are first cut into pieces about two inches in diameter. These are heated red-hot and struck with a punch into a number of holes, gradually increasing in depth to give them the correct shape. The thimble is then polished, trimmed, and indented around its outer surface with a number of holes by means of a small wheel. It is then changed into steel by the cementation process, lined, scoured, tempered, and brought to a blue color.

Silver thimbles are usually made of solid silver, though cheap qualities are sometimes plated or washed. Celluloid and rubber thimbles are moulded. The best gold thimbles are made in Paris. These are made of a thin foundation of steel and lined with gold, which is introduced and attached to the outside steel by means of a mandrel. Gold leaf is then attached to the outside by great pressure, the edges of the leaf being fitted in and held by small grooves at the base of the thimble. The article is then ready for use. The gold will last for years, while the steel never wears out.

Scissors. Scissors are tools for cutting threads and fabrics and have two cutting edges that are brought together by a handle consisting of a large and a small elliptical opening at the end of the

blades; the small opening is used for the thumb and the large opening for the first two fingers.

Scissors, which range from three to five inches long, are needed for clipping threads and for all fine cutting. Shears, which are six inches or longer, are required for cutting out materials or for general use. The work of cutting can be accomplished quicker with shears about nine inches long. The best shears are known as the "bent" shears. These are constructed in such a way that they will not raise the material from the cutting surface, and will cut two or more layers of material without slipping.

Buttonhole scissors are very convenient for cutting buttonholes, and are necessary when constructing children's or infants' clothing.

Scissors are made of steel, which is a form of pure iron. There are various grades of steel, and the best grade will hold the cutting edge the longest.

Tapeline. The costume or garment must be fitted to the person, that is, correspond to its measurements, therefore it is absolutely necessary to measure the form. The measuring is done by means of a narrow piece of firm cloth that will not shrink or expand. The measurements run in eighths from one to sixty inches.

Pins. Pins, like needles, should be carefully selected, as large pins on fine fabrics will leave holes that will spoil the appearance of the garment. Experience shows that steel pins one-half inch in length are best for plain needlework. Pins should be kept in a pincushion, as they are cleaned in the process of drawing them from the cushion. If kept in boxes, they are apt to rust or tarnish and stain the fabrics.

Pincushion. The most convenient type of cushion is one that can be tied to the top of the wrist by tapes. The filling of all cushions should be of wool.

Emery. An important equipment for the sewing basket is an emery bag for polishing needles. It consists of a red denim bag filled with emery, a very hard material used in polishing metals.

Tailor's Chalk. Tailor's chalk is essential as a marker for use on materials that will not show the marks with a tracer or when the use of the tracer is not advisable. This chalk is inexpensive and comes in white, blue, and red.

Needle is a small, sharp-pointed instrument, either straight or

curved, for carrying a thread through a woven fabric, paper, leather, felt, or other material. The most common form is that of a slender pointed bar pierced with an eye for the thread, either at the blunt end, or at the point, or in the middle. The first form is that of the ordinary sewing needle; the second, which is practically an awl with an eye at the point, is that of the sewing-machine needle; and the third form, which is made with a point at each end and an eye in the center, is employed in the Swiss embroidery machine. Sewing needles are commonly made of steel and range in size from coarse darning needles to fine cambric needles, and besides the distinction of purpose and size are classified according to the shape and character of the eye, the length, the sharpness of the point, and the style of finish, as drill-eyed, golden-eyed, sharps, betweens, blunts, ground-downs, etc.

The needle is by no means a modern invention, but has been in use from prehistoric times, probably before the era of woven fabrics. The first needles were clumsy implements, made of wood, fish-bone, bronze, ivory, and even of gold, though these materials have long since been superseded by steel. Steel needles seem to have been introduced into Europe by the Moors, though it is not probable that they were the inventors, since the Chinese claim to have used them from time immemorial. The first mention of needle-making in history as an organized industry is in connection with the town of Nuremberg, Germany, in 1370.

Needles are made from steel wire ground to a point, and then the eyes formed by perforating two holes close together, forming really two needles. The needles are then hardened and tempered to give the desired strength and elasticity.

The variety of needles manufactured for sewing by hand and machine, for packing, for upholstery, embroidery, and leather work, bookbinding, sailmaking, knitting, and for surgical purposes is very great, and demands many modifications in processes and appliances. For sewing alone there are said to be no less than 150 different styles and shapes used. Hand-sewing needles both in England and the United States are commonly quoted by manufacturers and jobbers at a given price per 1000. Originally they were made in but three styles: the first, short and rather blunt, with the point ground down to a roundish end, were known as

ground-downs; these are still used to a limited extent by tailors; the second style, somewhat shorter and sharper at the point, were termed *betweens*; the third style, known as *sharps*, were made longer and narrower at the point. These old-time forms still continue to be the ones most used for ordinary sewing. *Millinery* and *straw* needles are still longer in corresponding sizes than any of the foregoing varieties. The so-called *crochet* needle is a long, slender hook used for making crochet work.

Sewing-machine needles are awl shaped, with the eye near the point. They range in length from two to three inches and are of two general kinds: those with the round shank and those with the flat shank. The *tape* needle is a heavy, flattened variety from three to four inches in length, with a blunt point and provided with two eyes, one of which is long and narrow for holding a length of tape, the other large and round for containing a cord or coarse thread.

Upholsterer's needles are made of various shapes and lengths, according to the class of work for which they are intended. For deep sewing they are made straight, and either pointed at only one end, or at both ends; while for tufting a curved or half-round needle is employed. Upholsterer's straights range from six to sixteen inches in length, the curved from two to five inches in length.

Needles for ordinary sewing are graded according to size, the largest are 2/0. A medium-sized needle is No. 7 or 8. No. 10 is used for fine work.

Yard Stick. Cloth is sold by the yard and measured by a straight measuring stick divided into inches from one-eighth to thirty-six inches. This is called a yard stick.

Dress Form. Dress forms are used for draping the fabric or fitting the garment. The form is made of canvas filled with packing, with the dimensions of neck, bust, waist, and hips of a normal figure. There are forms for every size. Since the outline of the figure changes with the style, a set of forms must be made for each change of silhouette.

Tailor's Square. Since the dimensions on the form are taken on the perpendicular or horizontal lines, a tailor's square is used to lay out these measurements. The square consists of two unequal arms of wood at right angles, divided into inches and fractions of inches.

Tracing Wheel. The tracing wheel is a great help as an accurate

marker for seam lines and construction points. It should be of the best steel with sharp points and used only where the material will not cut.

Iron. The iron should be of medium weight with pointed end.

Ironing Board. The ironing board should be well padded, firm, tapering toward one end, and not too wide.

Sewing Machine. With the spread of democracy after the War of Independence and the French Revolution came a genuine desire for more and better clothing for the masses. Up to this time the upper classes were the only ones that could afford frequent changes of good clothing.

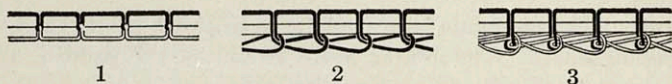
In the early part of the nineteenth century, all sewing was done by hand, usually at a rate not exceeding 30 stitches per minute for each person or operator. With the desire of people for more clothing there came a demand for greater production. The first power machine was invented in 1790, but was not a success. The first practical sewing machine was invented in 1830. Inventions and improvements have taken place until today we have a foot-power machine operated by a single person making 900 stitches per minute, or the equivalent of thirty people working on hand stitches. The power sewing machine, operated by a single person, makes 4000 stitches per minute, or the equivalent of 133 people hand sewing at once. The sewing machine is used for both plain and fancy stitching effects, in joining fabrics or parts of fabrics.

The principal parts of the sewing machine are (1) a stand or support for the fabric to be stitched, (2) a needle that moves up and down in penetrating the fabric with the thread, (3) a thread-carrying or non-thread-carrying implement moving under the support and working under the needle so as to form link threads, (4) an automatic device for feeding the fabric.

Sewing or stitching may be done by hand or machine. Hand sewing is more expensive, but it is very effective in certain parts of costumes.

There are two types of machines for sewing: (1) The double-thread or lock-stitch machine, which is the common sewing machine using two threads, and is valuable because it gives the same stitching on both sides, as shown in Fig. 1, and (2) the single thread or chain-stitch machine, which uses one thread and can be used only

for sewing on the right side of the cloth, as shown in Fig. 2, as the loops of the under side are not artistic.



MACHINE STITCHES

Showing the relation between fabrics and stitches. Note the horizontal line is the junction of the two fabrics. Heavy lines represent the stitches.

1. Double lock stitch 2. Single chain stitch 3. Two-thread chain

Notice in the above sketches that machine-made stitches consist of a line of link-like threads produced from one or more threads and spaced a definite distance apart. The distance between each link is considered as the length of a stitch. Each link is the end of one stitch and also the beginning of the next. A seam formed by a line of machine-made stitches, in order to be effective, must have strength and elasticity, and the stitches must not ravel or break when placed under a strain.

The common chain stitch, in Fig. 2, is formed by a single thread, which is first looped downward through the fabric. Then at a point a stitch-length distant the thread is again looped through the fabric and through the first-mentioned loop, and so on, thus producing a series of enchainéd loops on the under side of the fabric. A seam formed by this stitch embodies considerable elasticity and strength, and cannot be taken apart, although the last formed stitch is not locked, and a crosswise pull (which is a transverse strain) imparted to the seam will cause the loops to unloop from one another in progression along the entire line. The seam may also be destroyed, even if the ends of the seam are tacked, broken or skipped, by a side pull.

The lock stitch is strongest and is used on coats, suits, and dresses subject to considerable wear and tear. The best seam of the lock stitch is formed by a sewing thread which is twice the weight of the warp of the material to be sewed. A substantial seam should be one-sixteenth inch thick when the elasticity of the stitch is 10 per cent of the length without the thread breaking. It takes about $2\frac{1}{2}$ yards of thread to one yard of stitching.

Clothing is composed of pieces of fabrics stitched together. Since some parts of clothing are subject to more stretching than other parts, *i.e.*, armholes of a coat, it follows that the stitching in those parts must be elastic, in order to provide for the proper stretching. Hence the need of the stretching properties of stitches.

The single chain stitch stretches better than the double chain stitch because it is composed of a single thread, and therefore is not as rigid as a double thread. Of course, the material that the thread is composed of has much to do with its elasticity, as silk has six per cent elasticity compared to three per cent in ordinary cotton. Sea Island cotton with its long fiber has the greatest elasticity of all the cottons, and is used in making cotton thread. Italian silk has the greatest amount of elasticity, hence is used in making silk thread.

The single chain stitch is the safest and strongest for all goods that stretch: fabrics cut on the bias, knit goods, etc. As the seams of the stitches become thinner, the elasticity becomes less and less. Hence, thick seams should be used in portions of clothing subject to stretching.

The double chain stitch will not rip as does the single chain stitch, but has a rough, corded effect on the under side, due to the looping. As the name suggests, the double chain stitch has two threads side by side on the under part of the fabric. Compare this amount of thread with that required on single chain stitching, which is three and one-half yards of thread to a yard of stitching.

The single chain stitch can be pulled out by pulling the thread sidewise. The double chain stitch is formed by looping the thread on the under side of the fabric by a device called a looper, which acts like a finger device which loops the single chain stitch as shown.

Kinds of Thread. The size of the thread is very important. Since the thread is the fastening agent of the parts of the garment it should be a little stronger than the yarn of the fabric, as nearly as possible the size or thickness of the selvedge. To illustrate: The thread to be used on fabrics like ordinary coarse long cloth or calico should be about No. 50 cotton; for the medium grades of calico and gingham prints use No. 60 cotton thread; for fine fabrics like cambrie and fine long cloth use No. 70 cotton. For making and reinforcing button-holes, a coarser thread than that used in the garment should be used.

Silk thread is graded by letters, the finest is marked 00, the next coarser is 0, then A, then B.

For sewing on hooks and eyes and making button-holes and loops on silk and wool, twist is used.

Thread is graded by numbers; 70 is medium, 100 and 120 are used for fine materials.

Cotton thread, when looked at under the microscope, has a slight fuzzy surface of projecting fibers which lie smoothly when brushed from the spool or stroked in the direction of the end of the thread, but is made rough when brushed in the opposite direction. One should exercise care in threading the needle with either thread so that the nap will not be raised, otherwise the thread will become knotty and difficult to sew with.

The length of the thread in sewing should be equal to the distance from shoulder to shoulder.

The end of cotton hanging from the spool goes into the eye of the needle, while it is the opposite end in the case of silk.

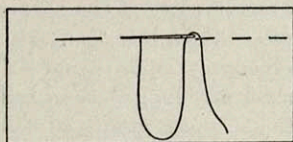
Cut the end of the thread diagonally.

Use no knots except for basting, gathering, and overcasting.

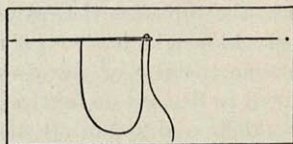
All plain sewing goes from right to left. All embroidery stitches from left to right.

Always cut the end of thread on material with scissors. Leave no ends in the material.

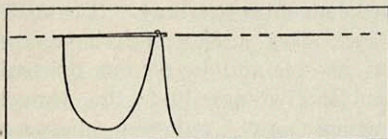
Stitches. In order to become efficient in dressmaking it is necessary to become proficient in making the stitches commonly used in the construction of garments. To determine when and where to use the several types of stitches, it is necessary to become familiar with the name, method of beginning, method of making, and finishing those most used.



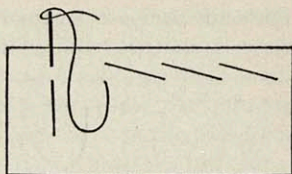
Even Basting. Used where there is strain in fitting garments. Spaces and stitches one-fourth inch in length.



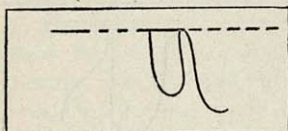
Uneven Basting. Stitches and spaces uneven in length. Space, one-eighth inch; thread, three-fourths inch.



Dressmakers' Basting. Made by taking alternately one long stitch, two short stitches, one-eighth inch. Used for seam guide for stitching.

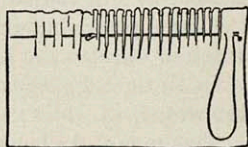


Diagonal Basting. Slanting stitches used to secure lining to outside material.



Running Stitch. Used where strength is not required; also for gathering, shirring, and tucking. Begin and end with a fastening stitch which, in each case, is composed of two back-stitches, small.

Gathering. Use an even running stitch for sheer materials, uneven for heavier materials, taking up on the needle one-half the amount passed over. The space to be gathered should be divided into equal parts, halves, quarters, and also the section to which it is to be applied. Use a knot and fasten it securely by two backstitches. It is usually advisable to put in two rows of gathers, so as to aid the gathers to fall into place more readily. After the gathering has been run in, pull up tightly, holding the top of gathers with one hand and pulling down with the other. With sheer material this will be all that is necessary. It will be necessary to stroke the gathers of heavier materials.

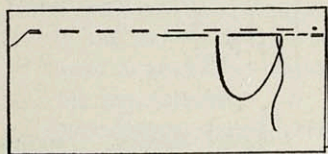


GATHERING

To stroke gathers, pull the thread up so the gathers are as close together as possible, and place a pin at right angles to stitches, and wind the thread around the pin in form of figure eight; then take a coarse needle and with the side of the eye push each little pleat under the thumb and press. Do not draw the needle down the material as this scratches the fibers, tending to weaken them.

Backstitch. The backstitch resembles machine stitching on the

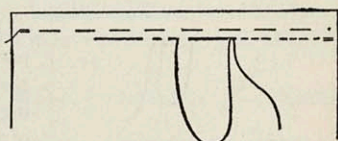
right side and an irregular stitch on the wrong side. It is used where strength is required in place of machine stitching. It is made



BACKSTITCH

by taking a short stitch on the right side and longer one forward on the wrong side; the thread comes out half-way between where the needle goes in and comes out. Use a fastening to begin and finish.

Combination Stitch. The combination stitch is used where less strength is required than the backstitch. It is quicker to make. It consists of two or more running stitches with a back-stitch. It is fastened with a back-stitch. The essential point of this stitch is that the needle and thread come out at the same place, but instead of pulling the needle out, the running stitch or stitches are taken immediately.



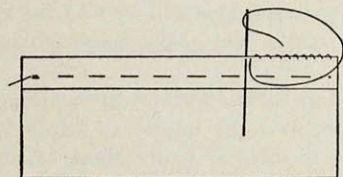
COMBINATION

One run and a back looks like the backstitch on the right side; the wrong side shows two stitches together and a space.

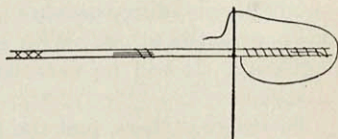
Two runs and a back.

Three runs and a back shows a single stitch then a combination of three stitches alternating; on the wrong side, a double stitch, then two single running stitches.

Overhanding. Overhanding is used where a strong, flat, invisible



OVERHANDING



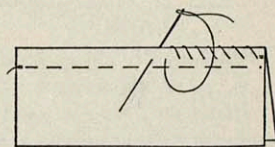
TOP VIEW

Showing beginning, joining of thread, and fastening of thread at end.

stitch is required for undergarments, mending, sewing on lace, etc. The pieces to be joined should be placed right sides together. Hold the material between the thumb and finger firmly, with the edges

toward the top. Take the first stitch through the one fold nearest, leave a half-inch thread between the folds, sew over this through both folds of material. Pointing the needle toward you, take very shallow stitches close together, but not crowded. To join the thread, leave half an inch of the old thread between the two folds, put the newly-threaded needle into the hole where the old thread came out and sew down the two threads as in beginning of stitch. Finish the seam by sewing back over the last three stitches. You will have the cross stitches as in the illustration.

Overcasting. Overcasting is a slanting stitch used to keep the seams or parts of garments from raveling. The raw edges should be trimmed before overcasting. Use a fastening stitch or concealed knot, and work from right to left, keeping the same slant throughout. Do not draw the stitches or cut the material. The stitch should be one-half the depth of the seam (this varies with the type of material), the width of the stitches about twice the depth — one-quarter of an inch is safe. In bias seams, work with the grain of the material. Fasten the thread with the fastening stitch.



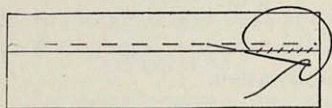
OVERCASTING

Hems. A hem is a fold used as a finish or as decoration on a garment. Hems may be narrow or wide according to need, but in all cases they must be accurately folded. Use a gauge. To fold a hem, turn one-eighth to one-quarter inch, according to the kind of material. If it ravel easily, one-quarter of an inch is necessary, but never more. Narrow hems may be creased and folded without basting. Wide hems must be basted accurately, using a gauge cut from cardboard with a notch in it indicating the width of the hem.

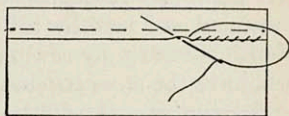
FASTENING STITCH HEMMING

Hold the material with the hem basted in place, fasten the thread, as in the illustration, by slipping the needle into the fold of the hem, drawing the thread through, and tucking it under

the fold. Take a stitch to secure the thread and continue hemming. Hold the work over the first two fingers of the left hand, the fold of the hem, where you are hemming, toward the right. Keep the stitches even, taking the stitch through the edge of the fold.



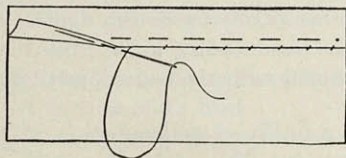
HEMMING



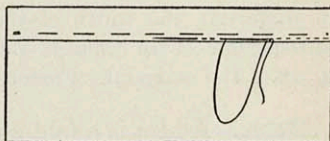
BLIND HEMMING

Stitch as straight as possible
on right side.

Blind hemming is used on silk or other thin material when it is necessary to have the sewing invisible on the right side. Proceed the same as in hemming, except take up only one thread in the material and insert the needle in the fold of the hem, using a long, slanting stitch on the wrong side.



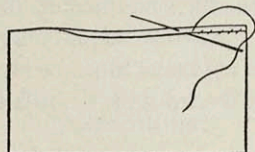
SLIP STITCHING



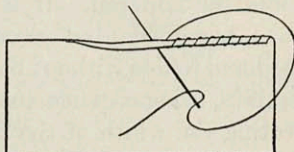
HEMS — RUNNING STITCHES

Slip stitching is used where an invisible stitch is desired on both sides, for holding facings, trimmings, hems, etc. It is not a strong stitch, but is very useful in finishing silk and wool hems.

Running-stitch hems are used on fine infants' garments and on sheer materials where it would not be advisable to use hemming.



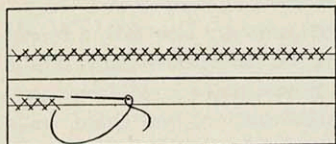
ROLLED HEM



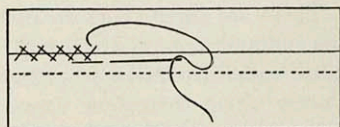
WHIPPING

Rolled hems are sometimes used where it is necessary to have a narrow hem on a slight curve.

Whipping overcasting stitches are used to join lace to the edge of a garment, or sometimes on handkerchiefs to roll the edges. The stitches must not be taken through the rolled edge, but under it. Rolling and whipping is sometimes used for edges of ruffles, which are then whipped to an edge. The stitches used for attaching the ruffle should take the same slant as the whipping stitches.



CATCH STITCH ON OPEN SEAM



CATCH STITCH ON FLAT SEAM

Catch stitch is a cross-stitch used to hold seam edges in place. It is used on flannel seams, especially infants' garters and flannel and velvet hems. It takes the place of overcasting and prevents raveling.

Hand and Machine Stitching. When one compares hand and machine forms of stitches and forms of embroidery or trimming of any kind, he will find the following:

1. Finer effects can be obtained by hand sewing, but unless it is well done, even, and fine, it is not as good as machine stitching. The method of comparing two machine-stitched fabrics is to note the number of stitches to the inch. The finer the stitch, the better the grade of the garment.

2. Hand embroidery or trimming is preferred to machine work because it is softer, not so rigid, and more attractive. The machine work can be distinguished from the hand work by noting that the hand work is finer and attached differently on the wrong side.

3. The quality of the thread determines the strength of the seam. Silk is the best, as it improves the appearance and strength.

4. Seams should not be cut too close.

5. Stitching should not run off, as it then fails to hold.

6. Folds are sometimes turned under in such a way as not to be caught by stitching.

7. Embroidery and other trimmings should be straight.

8. Fastenings should be evenly sewed on.

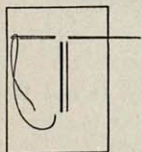
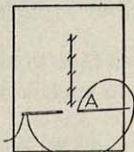
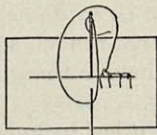
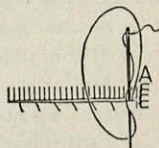
9. Buttonholes should be properly made and reinforced.

Buttonholes. There are certain parts of the costume that are brought or held together by buttons. The opening in the cloth or costume that holds the button is called a *buttonhole*. The buttonhole is made by cutting an opening in the fabric and then reinforcing the edges by stitches. It may be done by machinery or by hand — called “worked.”

There are three types of worked buttonholes: one with a fan at one end and a bar at the other; one with a bar at both ends; and a third, called the tailor’s buttonhole. Sometimes on children’s garments, where there is a strain at both ends, we find them made with a fan at both ends, as in children’s bloomers, drawers, etc. There are several steps in the making of a buttonhole, each equally important.

Marking Locations. With a bar and fan they are made on the upper side of the closing at right angles to the edge and so placed that they are one-fourth inch from the edge of the fold. In the front of a shirt waist they are placed parallel to the edge and in the center of the pleat or hem. Mark the position for the top and bottom buttonholes and divide the spaces between evenly. A buttonhole should be cut one-eighth inch larger than the diameter of the button and on an exact thread of the material. A pin prick at each end of the length of the buttonhole will aid in cutting the exact length if buttonhole scissors are not at hand. If buttonhole scissors are used, test the length of the slit on paper and then make a hem cut with one movement of the scissors.

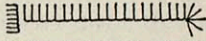
Barring and Overcasting. Buttonholes are strengthened with bars to prevent the edges from stretching. Bring the needle up at one end and allow the thread to lie parallel with the cut on the right side, then put the needle down at the opposite end. Do the

STRAND-
INGOVERCAST-
INGBUTTONHOLE
STITCHBUTTONHOLE
WITH BAR
AT ENDS

same on the opposite side of the cut. If the material frays badly reinforce it by machine stitching or running before cutting, or overcast the edges after stranding.

Buttonholes are also prepared by overcasting. Make five overcasting stitches along one side of the slit, turn the work, and make five overcasting stitches, on the other side of slit. Bring the thread up at *A* and make the bar at right angles to the cut, the length of stitch equal to the depth of both overcasting stitches.

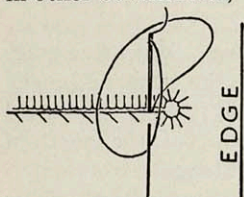
The last overcasting stitch should be directly opposite the first; bring the needle up through the slit at the right. Hold the slit across the first finger of the left hand. Bring the needle out one thread of material below the overcasting stitches. Take the thread as it comes out of the eye of the needle and pass it under the point of the needle from right to left. Keep the thumb nail of the left hand on the stitch and draw the thread straight up from the stitch, keeping the thread near the material. This will place the purl directly on the raw edge of the cut. Repeat the buttonhole stitch to the end of the cut, being careful to keep the depth of the stitch the same and close together, but not crowded. Now bring the needle up and make three stitches the length of the buttonhole stitches at right angles to the cut, close to the buttonhole stitches. Make five loop stitches over the bar; the third or center stitch should be taken through the cloth. This will keep the stitches turned toward the buttonhole and thus strengthen the cut. Continue the buttonhole stitch to the other end and make another bar at the opposite end.

In working the buttonhole with a fan and bar proceed as in making the barred buttonhole until the end of the buttonhole near the fold is reached. Then  take the stitches on a slant, inserting the needle at an angle, making five stitches in the fan, being careful not to increase the length of the stitches around the fan.

BUTTONHOLE WITH
FAN AND BAR

The *tailored* buttonhole is used for heavy materials. Baste around the slit to be cut to keep the material from slipping. Use a stiletto and punch a hole at one end of the length of the buttonhole, then cut the length or cut on a thread of material to make a triangular cut, which will form a resting place for the button. After cutting, either strand the buttonhole with twist or use a cord,

which must be held taut while working the buttonhole. Proceed as in other buttonholes, working around the rounded edge.

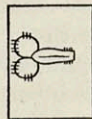
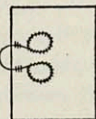
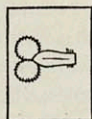
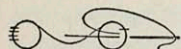


Buttons. In sewing on a button, use a coarse thread in preference to a fine double one. Make a small fastening stitch directly at the center of placing button. Bring the needle up through right hole of the button at 1, down at 2, up at 3,

down at 4. Loosen up the threads and place a pin underneath them on top of the button, then continue stitches until four have been made. Remove the pin, draw the button away from the material and wind the thread four times around the thread between the material and the button. This forms a shank for the buttonhole and lessens strain on material and button. The wrong side of the material will show two parallel lines.

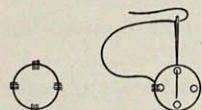
This is the strongest method of sewing on buttons. In a two-hole button, place the button so that the stitches will cross the warp.

Hooks and Eyes. Place the hook one-eighth inch inside the edge and sew through the two rings at right angles to the edge — four stitches, then three stitches at the side and four under the



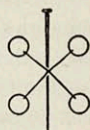
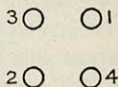
bill of the hook. For a very neat finish they may be fastened with a buttonhole stitch.

Snap fastenings are used where a very flat closing is necessary and where there is little strain. An easy method of placing is to sew on the ball part first. Rub tailor's chalk on the ball and press on the opposite cloth. The mark left by the ball shows where the socket side is to be placed. Sew them on with several stitches in each hole of the fastener.



The Marking of Seams and Notches. All seams and notches must be marked. This may be done in five different ways:

1. *Tracing Wheel.* For cottons. Trace on notches and seams



lines as given in the seam directions. Some patterns indicate the seam lines with small perforations or other signs. Others show no seam lines but in the directions state the allowance made. A three-eighth inch seam allowance is not enough for altering or nice finishing. Allow one inch for straight seams, three-eighths on curves.

2. *Chalk Board.* On many materials a line traced with the tracing wheel does not show. In such cases place the chalk board under the material to be marked and use the tracing wheel in the usual way. After one side is marked remove the pattern; turn the material on the other side and trace seam lines from those just made.

3. *Tailor Basting and Tacking.* Thread the needle with a very long double thread. Take three stitches about one inch apart, leaving loops about two inches long between the stitches. When the two thicknesses of material are pulled apart, cut these loops, leaving threads marking the seam lines.

4. *Seam Basting.* Place pins on the seam lines, parallel with them, through both thicknesses of the material. Then turn the goods over and run a line of basting stitches, taking them through one thickness only. After this is done, remove the pattern. Place pins on the line of basting, and on the other side place a row of basting stitches through that thickness of material.

5. *Tailor's Chalk.* The seam lines of a pattern may be cut off or turned back and the pattern chalked around with tailor's chalk on the wrong side of the material.

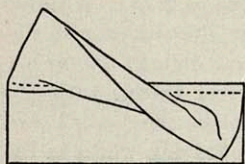
6. Another way is to use chalked thread so as to mark both sides alike. For this use a short thread. This method is used to advantage on thin materials.

The most important types of construction will now be considered:

Seams. Seams are used to join the parts of a garment. There are several varieties of seams and seam finishes, each adapted to certain kinds of material. The most important are:

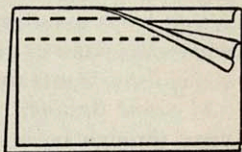
1. *French seams* are used on sheer materials and on thin and light-weight materials that are frequently laundered. The seam should be very narrow and not more than one-eighth of an inch in

width when finished. Hold the two edges of the garment with the right sides out, the wrong sides together, baste and stitch a little more than one-eighth inch from the marked seam line, trim off to within one-eighth inch of the stitching. Turn the material so that the raveled edges are inside, with the seam line directly on the edge. Crease or press the stitched seam. Baste just deep enough to inclose the edges of the seam. Stitch just below the basting and be sure that no ravelings project on the right side of the garment.

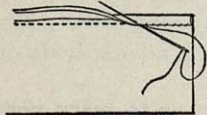


FRENCH SEAM

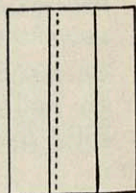
2. A *turned-in seam* — imitation French seam or false French seam. This seam is used where a design has to be matched and where it is desirable to secure the effect of a French seam. Stitch the seam as for a plain seam on the wrong side. Then turn in the edges toward each other, baste the edges together, then run by hand or stitch by machine close to the fold.



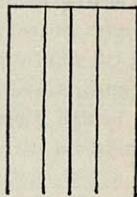
3. A *fell French seam* or standing fell is first stitched for a plain seam on the wrong side, then trim off the edge nearest you. Turn the projecting edge an eighth-inch fold, hem this fold to the seam line, or machine stitch. This is sometimes known as the *trade seam* and is used mainly on under-garments. It can be made with the fell attachment.



4. The *flat fell* is used where a flat finish is necessary, as on the shoulders of middy blouses, shirt waists, men's shirts, and boy's blouses. It may be placed on the right or wrong side of the garment and either hemmed or stitched flat. It is usually made on the wrong side of the garment when it is hemmed, and on either the right or wrong when machine stitched. To make, stitch a plain seam, trim off the edge nearest you, turn under the edge projecting and baste flat to the garment, then stitch close to the folded edge. The hand-made seam is cut, folded, and basted in the same way and then hemmed.



5. The *plain seam* is used where a flat, inconspicuous finish is necessary. It is generally used on tailored garments and on materials through which the finished edges will not show from the right side. In making plain seams, first pin the two edges together, having seam markings meet. Place pins at right angles to the edge of the cloth to prevent the edges slipping. Baste on the line of markings. Stitch directly below the basting, taking care not to stitch on the basting. Clip the basting every two inches and remove it. On silks and velvets use silk and clip the basting at each stitch, to avoid injury to the material. The finish of the edges of the plain seams will be determined by the kind of material.



a. Plain seams pinked. If the material is closely woven and does not ravel, the edges of the seam may be notched by hand or pinked by machine and pressed open. This method of finishing may be used on broadcloth, flannel, velvet, taffetas, fine linens, etc.

b. Overcasting is used on seams that ravel or fray. It is used on serge, dress linen, gingham. Overcasting is a very flat finish for seams. The stitches should be one-half the depth of the seam and one-fourth inch apart. The depth of the seam depends upon the looseness of the weave.

c. The edges may be pressed open and turned back on themselves, once only, and stitched or run by hand to themselves — not to the garment.

d. Materials that fray where they are liable to be seen are usually bound, either with silk seam binding, edges together, or pressed open and bound separately. Fold the seam binding with one edge projecting one-sixteenth inch beyond the other. Slip the binding over the edge of the seam with the border edge underneath, and while sewing with the running stitch hold the binding a little easy on the seam to avoid drawing the edge.

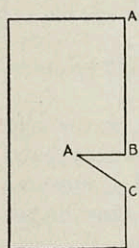
e. A rolled seam is used on sheer material where a narrow joining is required. Baste or stitch the seam edges together and trim all ravelings. Begin at the right edge and roll the two edges together and whip them. This is a suitable seam for georgettes and chiffons.

f. Hemstitched seams. Where there is no strain on the seam

hemstitching may be used. Baste the seam, hemstitch it, and cut close to the outer edge of the hemstitching.

g. Piquet seam. Sometimes the seam is hemstitched and cut close to the inner edge of the hemstitching. This finish should be used only where there is absolutely no strain on the seam, as in full-gathered skirts of organdie, chiffon, or georgette, where a flat finish is essential.

Edge Finishes. *Hems.* *a.* Plain or uniform hem. This hem is used on front and back closings, the bottom of straight skirts, and on household articles. The desired width is measured and can be more accurately folded by use of a gauge. *A-B* represents the width of the hem. Turn a fold on the material and then with the gauge fold and pin at regular intervals. Baste and stitch close to the edge.

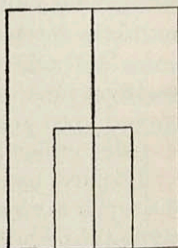


GAUGE
For marking
width of hem

b. Pin hems are one-sixteenth to one-eighth inch in width. Hold the edge to be hemmed away from you and make your first turning toward the wrong side one-sixteenth inch wide. Make a second fold the desired width. If the material does not crease well, it may be basted, otherwise hem without basting.

c. Damask hem, or napery hem, is used on tablecloths and napkins. Turn the material twice as for a narrow hem. Fold the hem back on itself on the right side, crease the material along the first fold and overhand the crease and fold together. Take small stitches so they will not show on the right side. Open and press the hem flat.

d. French or flannel hem. The seam is stitched to within twice the depth of the finished hem. Clip the seam at this point straight in to the line of stitching, turn the seam edges to the right side and stitch to the bottom. Press open, turn hem the right side, baste and stitch close to the edge, or, on a flannel gertrude, featherstitch.



e. Rolled hems are used where a dainty, inconspicuous finish is desired, such as on handkerchiefs, baby dresses, etc. By the use of colored embroidery cotton charming effects may be secured. Roll the edge toward you, working from right to left, rolling tightly

between thumb and forefinger of the left hand, take a few hemming stitches, and roll again. Whipping stitch, overcasting, or slant hemming stitch may be used to hold the roll in place.

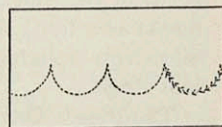
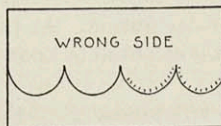
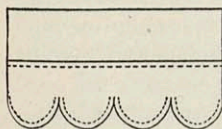
f. Hems on skirts or dresses. 1. Establish the hem line as directed on page 355. 2. Turn the hem allowance on the marked line, which should be a straight thread of the garment. Pin and baste the hem in place. If the seam lines are bias, the garment must be marked and pinned up on a figure. In either case, before stitching try the garment on for approval of length.

Finish of Hems. *a.* If there is fullness at the top of the hem, it may be regulated by gathers if the material is thin or, on wool where it is to be pressed out, by darts placed at right angles to the edge fold of the hem, turning them all in one direction toward the left for ease in stitching and pressing. This edge may be blind stitched or stitched by machine to the garment. If the material is heavy, it should be gathered without turning at the top. Cover raveled edges with a narrow taffeta ribbon or Prussian binding. Stitch this in place on the edge, not through the garment, and hem or stitch in place.

b. In cotton dresses, underwear, and children's clothing, the hems are usually stitched by machine. On dresses the hem is usually secured in place by slip stitching on straight hemming. Sometimes the first turning of a hem is stitched in place by machine. This method is desirable where it may be necessary to change the length.

c. The edge of the hem may be pinked if the material does not fray, as in velvet, flannel, jersey, and caught in place.

d. Run hems are used on baby dresses of sheer material, such as batiste.



FANCY HEMS

e. Fancy hems and scalloped hems on the edges of dresses are sometimes in vogue. In measuring for the hem extra allowance may be made for the depth. The design is traced on the wrong side of

the material, basting is then put in on the design in order to trace it to the right side. The design may then be stitched by machine or any fancy stitch used. If the edge is scalloped, the design is stitched on the edge, cut out, and turned to the wrong side. All concave curves must be clipped at the deepest points of the curves.

Facings. Facings are used as finish for the edges of parts of garments and sometimes as a decoration. A facing may be applied on the right or wrong side of the garment; unlike the binding, it shows on one side only. There are four varieties of facings:

a. Straight facing is used on any straight edge. The only requirement is that it match the grain of the part of the garment to which it is applied.

b. A bias facing may be used on curved or straight edges. It can be stretched to fit the curve.

c. A shaped facing or fitted facing is cut the same shape and on the same grain of the material as the part to be faced.

d. An exceptional facing is a bias facing. The place to which it is to be applied has the edge turned wrong side out. The edges of the facing are turned under once and pressed, then the facing is applied and both edges are basted evenly, first on the outer edge, then on the inner edge, stitch for stitch. This allows easing on the inner edge and stretching on the outer edge.

e. Extension facing is used for lengthening a dress or for decoration. Cut the facing twice the width desired plus seam allowance on each edge. Baste and stitch to the right side of the garment. Turn the under edge of the facing and hem at the stitching line on the wrong side of the garment.

Piping may be either straight or bias, used as a facing, or placed between two thicknesses of material. It is used for edges of garments as a finish, or for decoration. As piping is usually made of bias strips of material, it is essential to know how to cut and measure bias strips.

The Bias. There are two kinds: garment bias and a true bias.

1. A garment bias is often used in dress seams.

2. A true bias is the diagonal of a square. It is a cut which divides the warp and filling threads equally.

3. It is used for bindings, facings, trimmings, etc., whenever there is a curved line, also for other trimmings.

To obtain a true bias. Lay the warped threads parallel with the filling threads.

To use bias strips. First cut them on a true bias; second, apply them without stretching.

To mark for cutting, first turn back one corner diagonally so that a true bias line is obtained. This crease is your first line and from it mark with a ruler as many strips of desired width as you need, remembering as you mark and cut that evenness is necessary to perfect work.

In piecing or joining bias strips, always match grains, as well as designs. In speaking of the width of a bias strip the distance between the cut edges is meant.

In buying material on the bias the length of the selvedge is measured. One must buy about one-third more than the desired width of the bias strip; for instance, 12.6 inches must be bought if a 9-inch bias strip is required.

When 36-inch cloth is bought the bias is 50.7 inches.

When 18-inch cloth is bought the bias is 25.4 inches.

Rules for joining bias strips. Bias strips should be joined on the thread of the goods. Filling thread must join filling thread, warp thread should join warp thread.

Extend the end of one strip beyond the other — the depth of the seam.

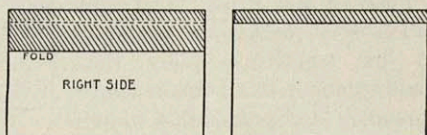
Binding Curves. When binding a scalloped edge, ease the bias at the outside edge of the scallop. Stretch it where the scallop joins the other scallop. The same principle holds good in binding the neck of a dress — stretch the bias. In facing the neck of a dress, ease the bias.

When using thin materials, use a double piece of bias, basting the bias strip

in half, before placing the three raw edges together. This method does away with turning under a raw edge.

Rat-tail trimming is made by seaming a bias strip and turning right side out, leaving a tubing.

Piping may be attached to a garment without the stitches



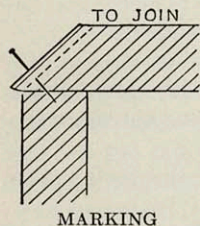
BINDING

showing on right side. Overcast the edges of the piping and the garment.

Facing with stitches showing on right side: Prepare the piping from one to one and one-half inches wide, fold one edge lengthwise one-third of the width. Place this on the right edge to be faced. Stitch through three thicknesses as for a seam, allowing the width of piping desired. Turn to the wrong side, turn under the free edge of the piping, baste, and either hem by hand, or stitch by machine. Suitable for washable materials.

Facing with stitches invisible on right side: Proceed as above, but instead of hemming the fold, stitch the turned-under edge not to the dress but by itself. It then will remain in place if well pressed. Suitable for wool or silk.

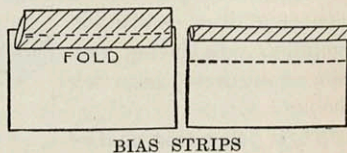
Corded pipings and facings are put on in the same way as above. Insert the cords and pin in place and then follow the same method as for piped facing or piping.



Marking. To mark materials, first turn one corner back so that the selvedge or lengthwise edge is parallel with a crosswise thread and the crosswise-cut edge is parallel with the lengthwise threads. Crease on the fold. This is a true bias. Measure from the fold (bias) the width of the bias strips. Place pins. Cut on pins, then cut through the fold. This will give

you two strips. Measure and cut from the bias edge, cutting through two thicknesses at once.

Forming bias strips. The most satisfactory method of piping is to join lengthwise edges, thus making the piecing follow warp threads. It is permissible to join crosswise threads.



Plackets. A placket is a finished opening in a garment. It is little needed with the present style of dress. Plackets may be divided into two classes: those that are cut straight and made of light-weight materials, and those that join a straight and a bias piece of material or two bias pieces and used on heavy material. Plackets are lapped from right to left. The right side is called the *overlap*

and the left side the *underlap*. On women's clothing the lapping is right over left, on men's clothing left over right.

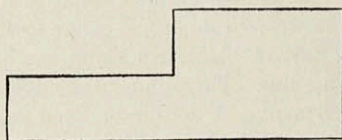
a. Hemmed placket, for baby dresses. Cut the opening along a thread of the material, usually 12 inches. On the left side of the opening turn an eighth-inch hem, tapering to nothing at the bottom. On the right side turn a three-eighth-inch hem. Lap this over the left side and at the bottom place two rows of backstitching one-eighth inch apart.

b. A placket used on flannel garments is made like the above, but featherstitching is used on the right side and catch stitching on the wrong side.

c. Bound or continuous placket. Cut the opening the desired length along a thread of the material. Cut a lengthwise strip of the material twice the width of the finished placket, with two seam allowances, and twice the length of the opening (about 2 inches for good measure). If the placket is to be applied by machine, place the right side of the binding on the wrong side of the garment; if it is to be applied by hand, place the right side of the binding on the right side of the garment. Lay the strip along the edge of the opening, both strip and edge of garment together, pin, and baste in a narrow seam. When near the bottom of the opening taper to a narrower seam — almost to a point. Turn the free edge of the binding under and hem on the stitching line or stitch on the outside.

If inserted in a seam, place the strip a little back of the garment seam. In either case, fold the lap on the right side of the opening back on the garment and let the other edge extend to form the underlap. It will not be visible when the garment is closed.

d. Underwear, or bound and faced placket. Sometimes called modified or L placket. This placket has the strip or lap stitched on as in the continuous placket except that the side (right side of opening) that is to be folded back on the garment is cut to within one-half inch of the bottom and to one-fourth inch of the folded center line of the strip. Stitch or hem the underlap in place as in a continuous placket. Then fold back the facing and baste in place.

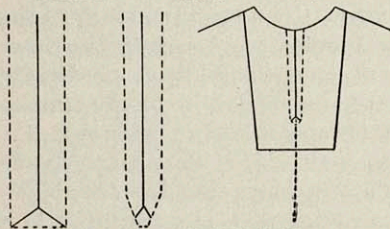


PLACKET CUT

This must be hemmed or stitched down and across the bottom of the facing. It may be cut before applying if desired.

Facing for a Slash Opening. Cut the facing the desired width and length. Cut and baste the facing to the garment, center of facing to center line of garment, and baste on the center line. Stitch around the marking for the opening (like a bound buttonhole is most satisfactory), then cut on the basting line down to within one-eighth inch of the stitching, clip if necessary, and turn the facing to the wrong side of garment. Finish the facing around the edge by turning back one-fourth inch and stitching to itself — not to the garment.

Collars. To apply a collar, stitch edges together. Place the under side of collar to the wrong side of garment with the edges of the collar exactly meeting the seam at the opening of the center front. Pin around the neck opening, baste, stitch, turn under the free edge of the collar, baste, and hem to the stitching line. When the collar



COLLAR STITCHING

is in place the stitching will not show.

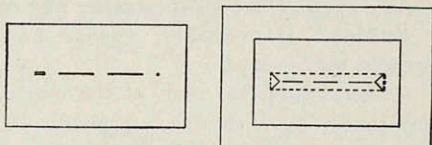
To sew an unlined collar to a neckline, baste it to the neck with the wrong side of the collar to the right side of the garment. Baste a narrow bias strip along the edge of the collar. Stitch the seam and clip. Turn under the edge of the facing, baste, and hem to the garment. A double or lined collar is applied in same way. Stitch the outside edges of the collar and apply with a bias facing.

Bound Buttonholes or slashes through which belts or ties are run, are all made in same way. They are used for fastenings or for decoration. First mark the location for the buttonhole with a colored basting thread. Make it about one-fourth inch longer than the button, unless used for decoration. Mark the location of all the buttonholes with colored thread at one time.

The strips for binding the buttonhole are sometimes cut on the bias, especially if striped or checked material is used for binding. Otherwise they are cut lengthwise of the material. When used on a garment that is not to be faced and where it is desirable to have a

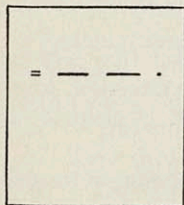
neat finish on the wrong side, cut the binding material one and three-fourths inches wide and one-half longer than the length of buttonhole. Baste the binding right sides together, center of binding on buttonhole marking. Stitch one-eighth inch each side of the marking basting, and across ends. Fold in one-eighth inch full around the edge of binding material and press. Cut along the line of basting through both garment and binding. Push the binding through to the wrong side, letting the binding-strip fill the space between the stitchings. Slip stitch the folded edge along the sewing line.

The finish on wrong side where it is to be faced: Do not turn in the edges, press, catch lightly in position. Baste the facing around the

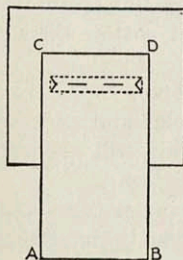


BINDING BUTTONHOLES

buttonhole securely enough to hold it in position. Cut a straight line over the buttonhole, turn in the edges of the facing, and slip stitch in place.



Bound Pocket. Mark the placing of the pocket by a line of basting stitches. Cut the pocket twice the desired length and one and one-half inches wider than the opening of the pocket. Crease the pocket piece two inches from one end, and place this crease directly over basting, ends extending evenly on each side, right side of pocket piece to right side of garment. Baste in position. Stitch across the ends and either side of basting one-eighth to one-fourth inch. Cut on basting line and diagonally to corners. Push the material to the wrong side. Press so that seams lie naturally. This will allow the facing to show at the top width of seam, and at the bottom width of seam completely filling the opening. Baste around the opening. Stitch across the bottom through garment and pocket. Turn up the



BOUND POCKET

edge *AB* to coincide with *CD* and stitch one-fourth inch around the edge of pocket. Overcast edges. Press and stitch across top

edge of binding through garment and two thicknesses of pocket, close to binding. The corners may be cut round before stitching and overcasting.

Welt pocket is made in the same way except when stitching around the opening. Stitch three-eighths inch from basting, cut and turn the seam at the top so that the stitching of the seam is on the edge. Fold the bottom of pocket opening so that the pocket material fills the opening. At the ends turn back the little flaps and press. Turn to wrong side and seam to pocket material. This will secure the ends. Finish the pocket in same way as before.

Cutting. If necessary, sponge and shrink the material (especially woollens).

a. Straighten the ends of the material by drawing a thread in any fabric in which this is possible. Clip the selvedge, pick up a thread, and pull it. The space where this thread has been pulled will be an exact crosswise grain. In some materials it will be necessary to follow the design instead of the grain of the goods.

b. Place all parts of the pattern on the material before pinning them.

c. Pin the pattern in place, putting in pins so that they will not interfere with cutting, and all pins pointing in same direction, down, and close enough together so that the pattern will be held firmly in place.

d. Cut carefully, use sharp shears, and follow the edge of the pattern exactly.

e. Before removing the pattern, mark every perforation and notch necessary for construction with chalk or colored cotton thread. Do not cut notches.

f. Remove the pattern, fold, and place in envelope.

Construction. a. Overcast the edges of armholes and neck or place small running stitches on seam lines. This will prevent stretching of these important edges during construction.

b. Pin the parts of the garment together, having notches and sewing lines exactly coincide; place pins at right angles to the sewing line, so as not to interfere with the basting and to prevent the material fulling on the pins. Pin shoulder and underarm seams, starting even at neck and armhole.

c. Baste accurately, measure the width of seam at the beginning,

and test frequently as you proceed, with a pasteboard gauge. Cut with a notch exact width of seam. Straight basting means straight stitching.

d. If there is a dart, always begin at that point to baste with small stitches. If the seam of the sleeve meets the underarm seam, match notches on sleeve with notches on back and front of waist, the highest point or center of sleeve with the shoulder seam. Straight lengthwise thread should fall straight from the shoulder seam down the upper part of the arm. A straight crosswise thread of the same material should be a continuation of the width of the back and width of the chest line.

Fitting. *a.* Remove the dress. Great care must be taken with the first fitting.

b. Pin carefully wherever alterations are to be made.

c. Determine length and width of the sleeve.

d. Remove the sleeve from the dress.

e. Remove the dress carefully.

f. Make both sides alike.

Finishing Seams. *a.* Stitch seams, remove basting, press open, finish seams, overcasting or binding, binding where possible. If serge or other smooth finished material is used, instruct the pupil to press on the wrong side.

b. Have neckline finished. Plain serge dress — bias finish of serge. The dress trimming very often suggests finish for neckline. Never use thin satin or similar material in light color for finishing. Color of any kind may be used, but added in various ways.

c. Finish the sleeve completely and carefully press before putting in dress.

d. Finish of armholes and hem are the last part of the work. Press carefully.

General Rules for Pressing. 1. Always press on the wrong side when possible. When not possible, cover material with a cloth or tissue paper.

2. Always press with the grain of the material.

3. Be careful when pressing a bias not to stretch it.

Cotton and linen: Dampen and use a fairly hot iron.

Silk: Do not dampen. Do not use a very hot iron. If basting

threads are to be left in while pressing, use silk threads. Do not use knots. Never sprinkle silk after washing. Iron it before it is completely dry.

Wool: Have a woolen cover on the ironing board. Place damp pressing cloth over part to be pressed. If there is danger of the material acquiring a shine during pressing, place a woolen cloth on it before placing the pressing cloth.

Shrinking the top of sleeves: Have the extra fullness gathered with tiny gathering stitches. Place the sleeve on the edge of the cushion, wet wool with a damp cloth. Press until dry.

QUESTIONS

1. (a) When did the ready-made clothing industry develop? (b) Why has it been a success?
2. Is it possible to revive home dressmaking?
3. What are three methods of making clothing?
4. (a) Describe the three methods of designing clothing. (b) State the advantages and disadvantages of each method.
5. What is the ideal method of making a costume?
6. Why is it possible for a normal person to be easily dressed?
7. What is the commercial method of making costumes and placing them on sale?
8. Name and describe the two classes of dress manufacturers.
9. (a) What is meant by making a costume by draping? (b) State the advantages and disadvantages of this method.
10. In examining a costume, what points should be considered?
11. How are commercial patterns made?
12. Why should great care be exercised in making a costume?
13. Name and describe the use of the tools used in constructing a costume.
14. (a) What is the difference between thread and yarn? (b) What is meant by size of thread?
15. Give briefly the history of sewing.
16. (a) Why do we have different types of costumes? (b) Name and describe the different types.
17. According to what standards should materials be selected for costumes?
18. Name the different methods of cutting a piece of cloth and state the advantages and disadvantages of each method.
19. Why do we cut on the "bias"?

20. (a) What is meant by the grain of the cloth? (b) Why is it necessary to know the grain?

21. What is the relation between the form and costume?

22. (a) What are the different methods of designing clothing? (b) State the advantages and disadvantages of each method.

23. Explain in detail how commercial patterns are made and used.

24. If patterns are made for model figures how are corrections made?

25. What is the (a) standard form, (b) ideal perfect figure?

26. (a) Are the measurements of the normal figure fairly constant? (b) State the definite relations between the different parts. (c) What are the dimensions necessary to know in the normal figure in order to determine the others?

27. Name the different types of forms, outside of the normal figure, and state the artistic or style strength and weaknesses.

28. (a) What are the specific weaknesses in artistic style in the form that may be present in any type? (b) How may each be corrected by clothing devices?

29. Name the different sizes for the normal costumes.

30. (a) What is a draped pattern? (b) State the advantages. (c) How is a draped pattern made?

31. (a) What is meant by draping on the form? (b) State the method of draping on the figures.

32. State the cutting devices for correction of a short, thin figure.

33. Explain how modifications may be obtained in clothing to correct: (a) long-waisted figure, (b) short-waisted figure, (c) large hips, (d) large bust, (e) flat chest, (f) round shoulders, (g) short, fat arms, (h) long, thin face, (i) broad face.

34. State the clothing devices for (a) tall, slender figures, (b) tall, broad figures, (c) tall, angular figures, (d) short, stout figures.

35. (a) Why do wider fabrics cut to better advantage? (b) How is a bouffant effect produced in a costume?

36. (a) Why does the average woman buy ready-made clothing? (b) Has home dressmaking disappeared? (c) State the advantages of home dressmaking.

37. (a) Explain how a style analysis is made. (b) State the advantages. (c) Explain in detail the method of style analysis.