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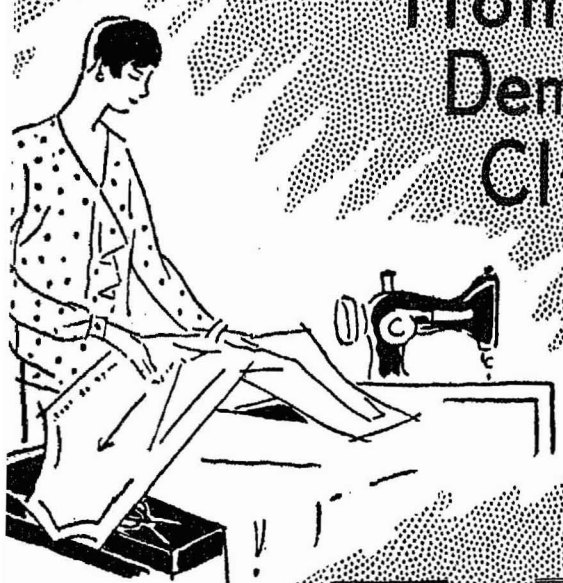
CLOTHING CONSTRUCTION

HANDBOOK

For

Montana Home Demonstration Clubs



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Clothing Handbook

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In order to make attractive clothing that has style it is necessary to choose appropriate construction processes and use them properly.

The position while working is important. Sit erect. Hold work up in the hands instead of bending to it. Sit so the light falls over the left shoulder whether doing hand or machine sewing. Keep the feet on the floor in a comfortable position. A low armless chair is best. If the chair is high try using a footstool.

Work should be protected—always wear a clean dress or apron while sewing. Keep the hands clean. If they perspire dust them with talcum powder or cornstarch.

EQUIPMENT

Well chosen equipment makes sewing a more pleasurable task and makes it possible to secure better results. The minimum equipment is: good scissors, an adequate cutting surface, an iron for pressing, thimble, needles and thread, pins, tape measure, and tailor's chalk. There are a number of other pieces of equipment that add to a worker's efficiency. Small articles are so easily misplaced that it is well to keep them in a small work box or basket.

Note—This edition revised by Josephine Pollock, Extension Clothing Specialist

Scissors—It pays to buy good scissors. Scissors longer than six inches are called shears. Shears have a round hole for the thumb and an oval hole for the hand. Seven-inch shears are usually satisfactory. Keep cutting scissors or shears sharp and use them only for the purpose intended. A cheap pair to be used for paper cutting and the like is an economy.

Thimble—A thimble is used to protect the middle finger of the right hand and to aid in pushing the needle through the cloth. The thimble should fit.

Needles—Many sizes and kinds of needles can be purchased. They are numbered from 1 to 12, number 12 being the finest ordinarily used. Needles may be purchased in packages containing assorted sizes; a package of sizes 5 to 10 is a good assortment to start with. A needle should be just large enough to carry the thread used.

The kinds of needles most often used are sharps and crewel. **Sharps** are medium length needles with round eyes. **Grounddowns** are very short and are used for very fine hand sewing; **betweens** are slightly longer and are used for the same purpose. **Milliners** are longer than sharps. All these have round eyes. **Crewel** and **darning** needles have elongated eyes which easily carry darning cotton, embroidery floss, or wool.

Thread—Cotton thread comes in numbers 8 to 200. No 8 is the coarsest. Mercerized cotton thread comes in fewer sizes. The size of silk thread is indicated by the following: 000, 00, 0, A, B, C, D, E, EE. Size A is generally used for stitching and size D, which is coarser, for buttonholes. Thread should be chosen according to the fineness or coarseness of the fabric on which it is to be used. Cotton thread size 60 is appropriate for a cotton print.

The color of the thread should also be carefully matched to that of the fabric. When matching a colored thread choose a shade darker than the fabric because a single thread is lighter than the whole spool appears.

Pins—Small sharp pointed pins are best. An economical way is to buy those known as dress-maker's pins in one-fourth or one-half pound boxes. Brass pins will not rust. Needles or silk pins are sometimes used where care must be taken to avoid marks in material.

Pincushion—A small light weight pincushion that can be pinned to the worker's dress is convenient.

Tapeline—Use a reversible 60-inch tapeline of good firm material which has the number one (1) at each end.

An **emery bag** is useful for cleaning and sharpening needles.

A **yard stick** is convenient for marking skirt lengths and for other purposes.

Tailor's chalk is excellent for marking. It is a fine hard chalk that comes in white and colors. It marks easily and can be brushed off easily.

CARE AND USE OF SEWING MACHINE

Cleaning and Oiling—A sewing machine which is not well cared for cannot be expected to do good work. The first essential is to keep it clean and oiled. If your machine is hard to run, do not blame the machine until you have made sure that it is not thus protesting against being abused.

Examine the machine and read the book of instructions to find out how to get at every part to clean and to find places where it may be oiled. Use only good quality machine oil. If the machine becomes sticky, it may be cleaned with kerosene (coal oil).

Needle and Thread—The size of the thread, needle, and stitch must be adapted to the material and work. Anyone who sews should keep in her work box sewing cotton in several sizes, say 50, 60, 80, and 100—and needles of various sizes. Always use as small a needle as will carry the thread. With the sewing machine there should be needles of various sizes. To do good work on fine material a fine needle should be used; also a fine thread. Learn how to change needle quickly and accurately. It must be correctly placed or thread will break.

Regulating the Stitch and Tension—Read direction book with machine and learn how to adjust the stitch and tension for different weights and weaves of material.

Treadling — Action of Feet — It is essential that treadle practice precede actual sewing on the machine. For this practice the belt should be taken off the balance wheel and upper thread and the shuttle removed from the machine. Learn to treadle evenly and with as little effort as possible.

Get a chair high enough to allow the feet to be placed comfortably on the treadle, and to sit squarely in front of the machine, directly in line with the needle. Place the ball of the left foot upon the upper left hand corner of the treadle, and the heel of the right foot on the lower right hand corner.

Even Treadling—As soon as the proper motion has been learned, place belt on the balance wheel and continue practice until it is possible for the operator to start the machine and keep it running evenly and smoothly. To start treadling evenly give the balance wheel a start with the right hand at the same time pressure is applied on the treadle. The direction in which the balance wheel is to turn in starting will depend upon the make of the machine. It must turn in the direction which will enable the feed-plate to carry the material backward away from the needle. During this practice do not have the machine threaded, nor the presser foot in contact with the feed.

When using an electric machine it is equally necessary to regulate the action. Instead of treadling, foot or knee pressure against a control lever regulates the speed and evenness of action.

Stitching—Straight Lines—With pencil and ruler draw lines about one-fourth inch apart on a sheet of paper about 6x9 inches. Let these

lines represent the basting and practice following these lines with stitching until perfect results are obtained. Practice with paper and without thread until the operator can follow the lines with ease.

Turning Corners — The next practice should be with a sheet of paper of the same size as above. Begin by stitching near the edge, keeping the edge of the paper even with the right hand edge of the presser foot. When near the corner stop the presser bar, and turn paper ready to stitch along the next line. Follow the four sides of the paper and use the first line of stitching as the guide; make a nest of squares until the entire paper is filled. This gives practice in turning corners as well as in stitching straight.

Machine Attachments—Learn to use those that are simple enough in operation really to be time savers. Learn to use at least the small foot hemmer, the binder, the ruffler, and the tucker. Follow carefully the directions which come with the machine. Practice is necessary in order to secure ease of operation.

STEPS IN MAKING A GARMENT

Patterns — Select the Right Size — Patterns are sold by both age and size. Taking accurate measurements is the only way to know what size to buy.

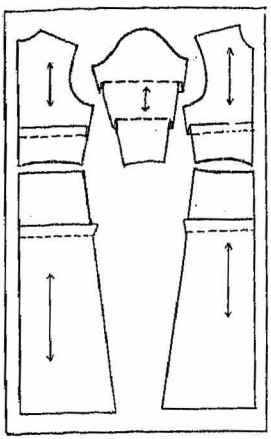
Study the Pattern Carefully—Read any directions that may be on the outside of the envelope. Note the amount of material required for your size. Study the fashion drawing in the pattern book and on the envelope of the pattern to see how the garment should look when finished—where it is snugly fitted, where it is loose.

When the pattern envelope is opened, study first the direction sheet enclosed. Note the number of pattern pieces and select those which you will need and put the others back into the envelope.

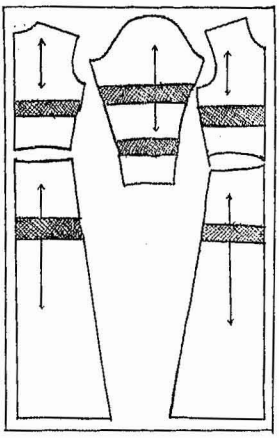
Test the New Pattern—by checking the actual pattern measurements with your own measurement, plus allowance for ease. The allowance for ease varies with the type and style of garment. The pattern may also be checked by comparing it with a foundation pattern or another pattern known to be correct in size. It helps also to pin the pieces of the pattern together on the seam lines and slip it on. Thus one sees the relation of parts to each other as well as the size where only one-half of the pattern is given, be careful to pin the "fold" edge of the pattern on the figure where it would normally come. Learn what each marking on the pattern means and be sure to note the allowance made for seams.

Alteration of Patterns—(Fig. 1)—Alterations, if they are greater than the amount allowed for in the pattern, should be made within the pattern, not on the edges.

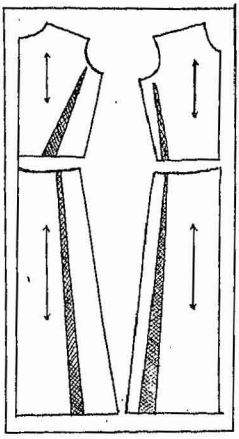
In altering sleeve patterns measure to see where large place is, then alter pattern accordingly. For arm large above the elbow see Fig. 2-A, for



To shorten, make tucks in pattern as indicated in diagram.



To lengthen, slash pattern and spread at points indicated or put tuck in material before cutting.



For larger hip and diaphragm slash and spread.

Fig. 1.

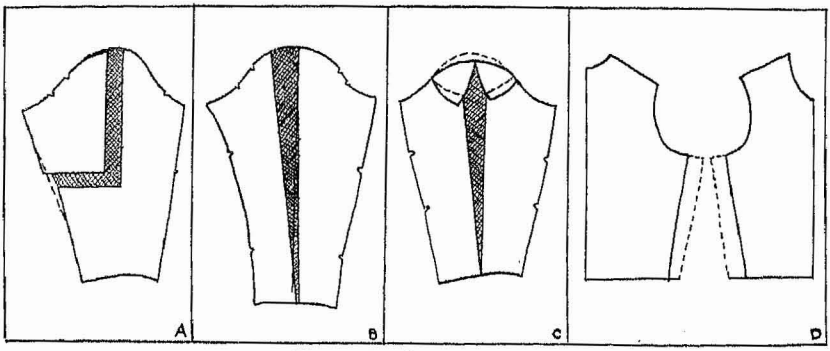


Fig. 2—For Large Arms.

arm large all over see Fig. 2-B, for large muscle see Fig. 2-C, for making the armhole larger to correspond with the sleeve pattern see Fig. 2-D.

It is a good plan when making big alterations to cut a new pattern out of tough brown paper and make alterations in it. Keep the original pattern intact to use as a guide.

Cutting—Collect the necessary tools for work—cutting shears, pins, needles, tape measure, thread, thimble, etc.

Find a level, firm cutting surface large enough for the pattern and the width of the goods. A large table or the floor will serve.

Study the pattern lay-outs for the width material you have, then place pattern pieces. Be sure to keep the pattern straight with the grain of the material and have both pattern and material free from wrinkles and creases. The material must be straight before cutting out a garment. Many materials are torn by the salesperson so are straight across the ends. If not, pull a thread to straighten. If the material has been pulled crooked in the pressing pull it at diagonal corners out along the edges to straighten and press it if necessary before cutting.

Use pins and weights to hold the material securely while cutting. Pin first the part of the pattern that cannot be moved. For example, if an edge is to be laid on a fold, pin that edge first. Mark perforations and notches with chalk or colored basting thread. Mark the center of the front and back of garments with long uneven basting to be used as a guide when fitting.

Stay curved or very bias edges with running stitches to prevent stretching.

Work with the pieces in pairs—that is, baste the two shoulder seams, the two under arm seams, etc. Work on the cutting surface, lifting and moving the pieces of cloth just as little as possible. Much poor fitting is due to the stretching of cut edges.

For assistance in fitting see Farmers' Bulletin 1530.

Shrinking—Cotton—One of the most satisfactory ways of shrinking cottons or linens is to place the folded piece of material in a tub of lukewarm water. The material must be thoroughly wet, even to the innermost fold. If the material is not wrung in any way, but hung in folds, it will dry without wrinkling and require little or no pressing. The more care taken in hanging the material evenly the better condition it will be in and the less pressing it will require. In ironing see that the iron always follows the threads of the material straight across or up and down the selvage. It is important to keep the warp and woof threads straight to prevent difficulties in placing a pattern on the grain of the material.

Wool—When new wool cloth is used it should be pre-shrunk before cutting. To shrink at home, clip or remove selvages, straighten ends of material. Wring muslin or sheeting out of water, spread out on table, lay wool cloth smoothly on wet cloth. Roll them together over a smooth board that is as long as the folded material is wide. Smooth out all wrinkles at each turn. Let stand until the cloth is thoroughly dampened. If necessary, press on back of material, using a press cloth. Cloth rolled on a board usually does not need to be pressed. The cloth should be thoroughly dry before it is cut.

Pressing—In making a garment, each seam should be pressed as soon as it is made. This makes the next step much easier and the general result is much more satisfactory. Seams, unless used for decoration, should be as flat and inconspicuous as possible.

The ironing board should be well padded. A wool pressing cloth pinned

across the ironing board helps prevent shine on wool garments. Press on wrong side as much as possible. Always use a pressing cloth between wool or silk and the iron. Use a long narrow cloth for seams and hems and a large one for general pressing. Heavy muslin which has been washed makes a good pressing cloth.

For heavy materials the pressing cloth may be wrung out of warm water. For light weight materials lay the pressing cloth on and sponge lightly. To keep seam edge from showing on right side, put strips of paper between the edge of the seam and the material while pressing. Do not press wool material entirely dry. In pressing silk use a moderately warm iron and press on the wrong side. Do not sponge silk or use wet pressing cloths next to the silk. If it is badly wrinkled sponge the pressing cloth lightly. Rayons are pressed in the same way as silks. It is well to test the iron on a scrap of material. Some rayons (e. g. celanese) will shrivel or melt if pressed with too hot an iron.

A tailor's cushion and pressing roll make pressing much easier. To make a tailor's cushion, cut two pieces of material oval, ham, or pear shaped. It is desirable to have one piece wool and one muslin. Cut a strip two inches wide, long enough to encircle and make into a box cushion. Stuff firmly with sawdust or shredded rags. A tailor's cushion is used when pressing the shoulders and other parts of a garment difficult to press on the board.

A pressing roll may be made by rolling a magazine tightly and sewing a cloth around it. This is particularly good for the sleeve seams.

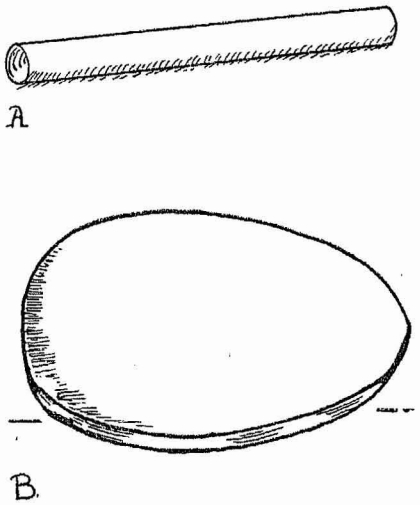


Fig. 3—(A) Pressing Roll; (B) Tailor's Cushion

SEWING PROCESSES

When beginning to sew, assemble all necessary tools. Sit comfortably in a good light.

Thread the needle with the end of the thread as it comes from the spool. Cut the thread with the scissors—do not bite it. The thread should not be longer than can be easily handled. "A thread not longer than the distance from the finger tip to the shoulder" is frequently recommended.

Knots are used in basting threads. For other sewing it is usually well to take two or three running stitches from left to right (if the work is to

progress from right to left) to hold the thread. Knots should not be used where they will be seen or cause a shiny spot when the garment is pressed. It is a convenience to learn how to tie a knot with one hand.

Construction Stitches

For dainty, neat finishing, hand sewing is essential. Some hand stitches are needed in the making of most garments.

Running Stitch—The running stitch is the stitch most commonly used. Take up a few threads of the cloth on the needle, pass over the same number or more. Work from right to left. The length of the stitch depends upon the use.

Basting—This is a temporary stitching used to hold materials together only until they are finally sewed. Use a knot. Fasten by taking two or three parallel stitches diagonally across the cloth above the end of the basting. When removing basting stitches, clip the thread at intervals to prevent puckering or pulling threads in the material.

Even Basting — Use where there may be a strain on the seam before it is permanently stitched, as in garments that are to be fitted. Make even length stitches. The shorter the stitches the firmer the basting.

Uneven Basting — Use as a guide for stitching or to hold two or more thicknesses of material together for stitching or handling. Make a shorter stitch on the under side than on the upper.

Diagonal Basting — Serves to hold two thicknesses of cloth together and to keep them from slipping. Example: A collar that is to be made double. Make a diagonal stitch on the upper side of the material and a vertical stitch on the under side.

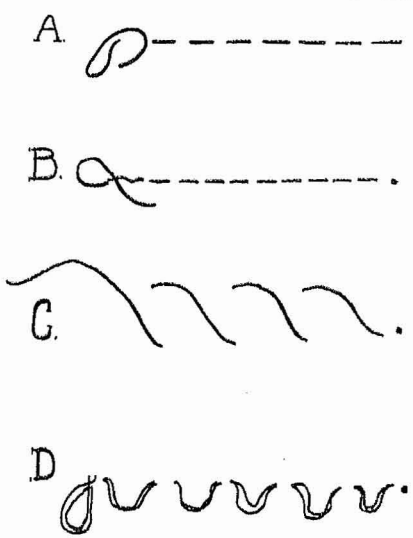


Fig. 4—Basting stitches: (A) Even basting; (B) Uneven basting; (C) Diagonal basting; (D)Tailor's basting.

Tailor's Basting—Tailor's basting is a very satisfactory way of marking materials. Use a long double thread, taking first a short, then a long stitch. The thread is not pulled through tightly, as in regular basting, but each long stitch is loose enough to form a loop. After the basting is finished the two pieces of material can be pulled apart as far as the loops will allow, and the stitches which hold them together are cut between the two layers of material. This will leave stitches enough on each piece of material to indicate the line.

Gathering—Divide both material to be gathered and that to which it is to be applied as an apron edge and ruffle to be sewed on, into equal parts—eighths, quarters, or halves—and mark with pins or thread. The gathering thread should be a few inches longer than the space to be filled. Use a single thread fastened with a knot. Knot end of the thread when finished so the material may be drawn in either direction. When gathering, do not remove the needle from the cloth until the end of the space to be gathered has been reached. Push the cloth off at the end of the needle as the needle becomes filled. Better results are obtained when two rows of gatherings are used.

Stitching Stitch—(Sometimes called the backstitch)—(Fig. 5-B)—This makes a strong seam. Begin stitching with a small running stitch, then take a short stitch back on the upper side of the cloth and a stitch twice as long forward on the underside. When the thread comes to the upper side, make a stitch back to meet the one already made and repeat as before.

On the upper side of the cloth the stitches resemble machine stitching. On the wrong side the stitches overlap.

Backstitch—(Sometimes called the half back). (Fig. 5-A). Make the same as backstitch, passing the needle forward on the under side three times the length of the stitch on the upper side and putting the needle down halfway back to the preceding stitch.

This stitch on the right or upper side looks like the running stitch, on the under side the stitches overlap half their length. It is not quite so strong as the stitching stitch.

Combination Stitch—(Fig. 5-C)—Take two or three running stitches, then a back stitch. Repeat this combination.

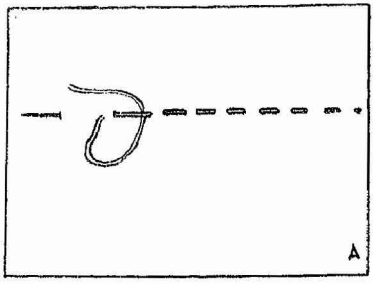
Overhanding—(Fig. 5-E)—The overhanding stitch is used to make flat, almost invisible seams. The edges sewed together must be finished edges as selvage, folds, or lace edges. Baste, placing exactly together the edges to be sewed. Draw the needle through the upper thickness of cloth at the right hand end of the work and sew close to the edge. Work from right to left. Stitches must be close together but not crowded.

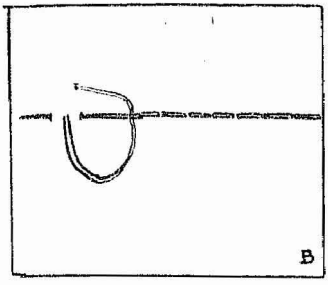
To finish turn the work about and take a few stitches back over the work done. Cut the thread. Avoid making the stitches too deep or drawing them so tight as to form a ridge.

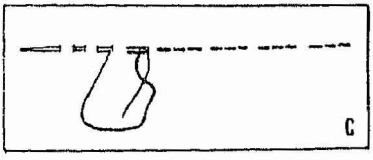
Hemming Stitch—(Fig. 5-D)—The hemming stitch is used to hold folded edges in place, as in hems, facings, and bindings. To start, run the needle from left to right through the fold which is to be sewed down, then turn and work from right to left. Take up two or three threads of the cloth and of the edge of the fold. Repeat.

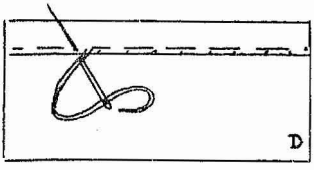
Keep the size and the slant of the stitches even. Leave the threads between the stitches rather loose so there will be no pucker.

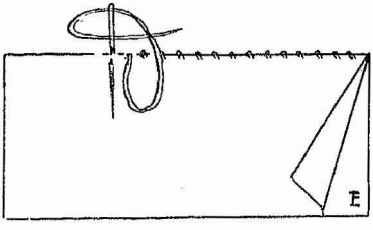
When the plain hemming stitch is used on towels, apron bands, etc., the small slanting stitches are placed close together. When hemming a garment as a dress or a slip, the stitches are very small and farther apart.

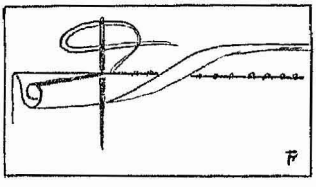


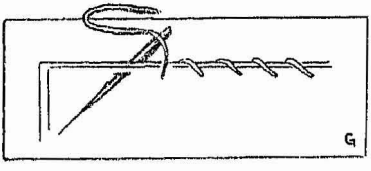


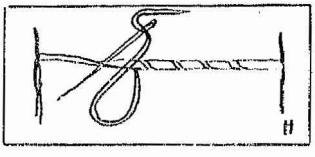


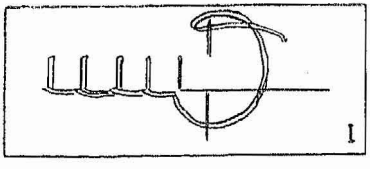












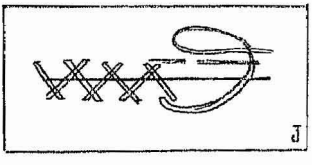


Fig. 5—Permanent stitches: (A) Backstitch; (B) Stitching stitch; (C) Combination; (D) Plain hemming; (E) Overhanding; (F) Damask or napery hemming; (G) Overcasting; (H) Whipping; (I) Blanket stitch; (J) Catch stitch.

Vertical Hemming—Take stitch perpendicular to edge of hem, putting the needle into the cloth directly under the place at which it came out of hem. Catch only two or three threads of body of cloth, then into hem.

Slip Stitch—Sometimes called blind stitch. This stitch is used where an invisible sewing is desired to hold hems, facings, and bindings in place. Take a tiny stitch under the edge of the fold, then insert the needle into the cloth, taking up as little as possible. Do not draw the thread too tightly. Repeat to the end. This is not a strong stitch but is suitable for fine finishing where there is no strain.

Damask or Napery Hem—(Fig. 5-F)—This is used as a finish for table linen and towels. Fold the width hem desired. This is usually ¼ inch for napkins and wider for table cloths. Fold the hem back on the right side with the first fold of hem parallel to this third fold. Overhand the two folds together. Crease open.

Overcasting—(Fig. 5-G)—This is a loose diagonal stitch taken over the raw edges of cloth to keep them from raveling. Trim the edges to be overcast. Fasten the thread with two or three back stitches. Hold the material along the first finger of the left hand, point the needle toward the left shoulder, bringing it through from the under to the upper side. Work from righ to left. The stitches usually are twice as far apart as they are deep, the size depending upon the character of material on which they are being used. A material which is loosely woven and ravels easily requires deeper stitches than a finely woven material.

To finish, take two small back stitches on the underside.

Whip Stitch or Rolled Hem Stitch—(Fig. 5-H)—Roll the edge to be finished between the thumb and first finger of the left hand. Make the roll as tight and as small as possible, rolling just enough to hold the raw edge securely. Work toward yourself. Roll an inch or two in advance of the sewing. Do not use a knot. Insert the needle under the roll, leaving an end which is to be caught into the roll and held with the stitches. Stitches are taken like hemming stitches; they must be kept an even slant and should be close together. The rolled hem may also be held down with a slip stitch or a blind hemming stitch.

Catch Stitch—(Fig. 5-J)—The catch stitch is worked away from the body. Bring the needle out at the left-hand end of the lower line. Take a short stitch from right to left on the upper line, sufficiently in advance of the first stitch on the lower line to give the desired slant to the stitches. Then take a stitch on the lower line at the proper distance to give the desired slant. Repeat to the end of the work.

Decorative Stitches

Shell Edge—(Fig. 6-A)—Baste a narrow hem the desired width in soft material. Take one or more invisible hemming stitches, then take two stitches in same place over the hem, drawing them close to form a scallop.

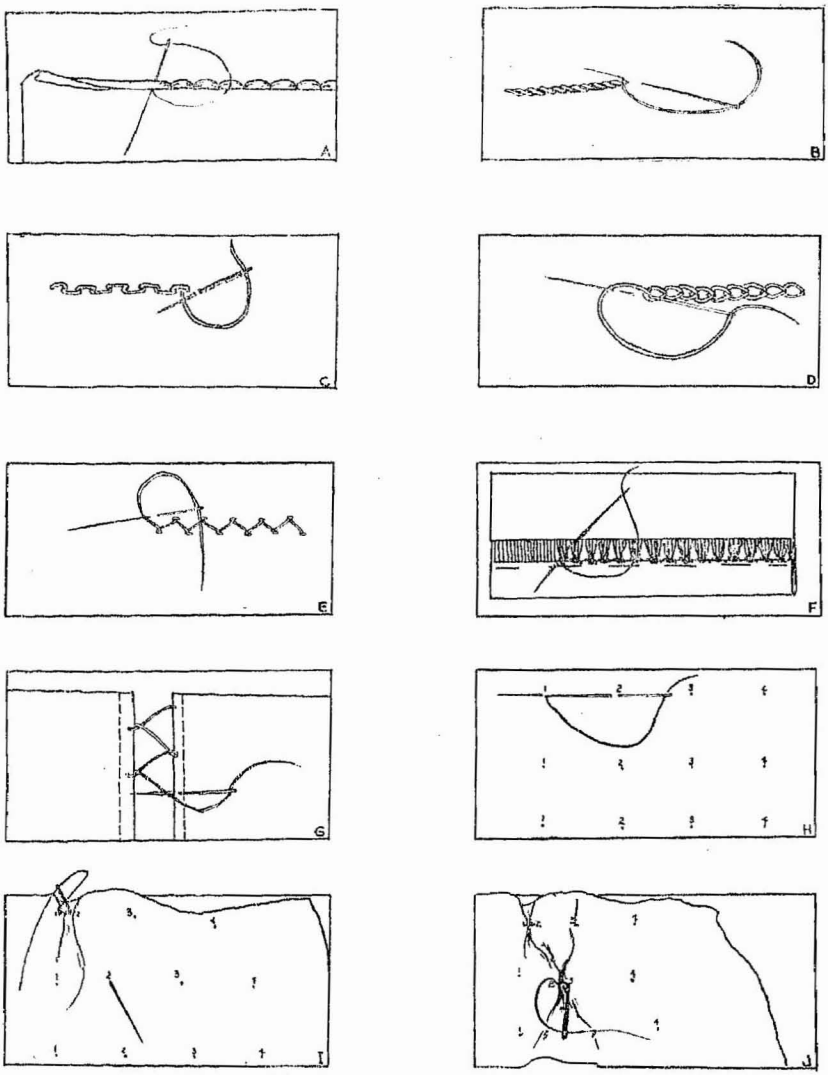


Fig. 6—Decorative Stitches

Outline Stitch—(Fig. 6-B)—Work from left to right. Bring the needle out of the material, then take a stitch from right to left. Keep the thread below the needle all the time. The appearance can be varied by the amount of overlapping and the slant of the stitches.

Cable Stitch—(Fig. 6-C)—The cable stitch is made similar to the

outline. Work from the left to the right. Let the thread drop below the line for the first stitch, throw it above the line for the second, below the line for the third, and so on.

An attractive decoration is obtained by making two rows of cable stitches close together, the second started so that the threads are thrown in the reverse or opposite order to the first.

Chain Stitch—(Fig. 6-D)—The chain stitch is worked from right to left, or toward the body. Be careful to keep the stitches even.

Blanket Stitch—For making the blanket stitch, see Fig. 5-I on page 12.

Feather or Briar Stitch—(Fig. 6-E)—These stitches are variations of the blanket stitch. Work toward yourself. Take stitches first to the right, then to the left of the line to be followed. Hold the thread under the left ' umb.

Hemstitching—(Fig. 6-F). Pull the desired number of threads from cloth far enough from the edge of the material to allow for a hem of suitable size. Turn hem and baste. Work from right to left on the wrong side of the material. Fasten thread by taking 2 or 3 running stitches from left to right on under edge of hem. Pass needle through hem and take up four or more threads, then pass the needle around the threads and through hem. Repeat.

Fagoting—(Fig. 6-G)—Fagoting is a decorative way of joining the finished edges of two pieces of material together. A narrow hem, not more than one-fourth inch wide is made on the edge of the body fabric. The fagoting looks nicest when the edges to be joined are soft and folded without other stitches showing. The pieces to be joined are basted on stiff paper with a space between the width of the fagoting desired. Work from left to right.

Smocking—Smocking is a decorative means of holding in fullness. First, mark several rows of dots. Measure accurately wth a ruler. Start each row exactly on line with others. The dots are usually about three-eighths to three-fourths inch apart in the horizontal rows. The rows may be one-fourth to one-half inch apart. The farther apart the dots the fuller will be the smocking. After the desired number of dots are in, begin working.

Honeycomb Smocking—is worked from left to right. Fasten the thread on the wrong side of the material and bring it through in the first dot on the first row. With the needle pointing to the left take up a tiny stitch at dot 2 and at dot 1 in the first row (Fig. 6-H) and bring them together. Pass the needle under the material and bring it out at the second dot on the second line of marks (Fig. 6-I), and again with the needle pointing to the left take up a tiny stitch on dot 3 and dot 2 in the second row and bring them together (Fig. 6-J). Then bring the needle back up to the first line and out at dot 3 (Fig. 6-J), and proceed clear across the first two rows of markings. Break the thread and begin working on the third and fourth rows of markings. The dots may be arranged so they taper to a point if desired.

Honeycomb smocking is the simplest to make. This stitch and others

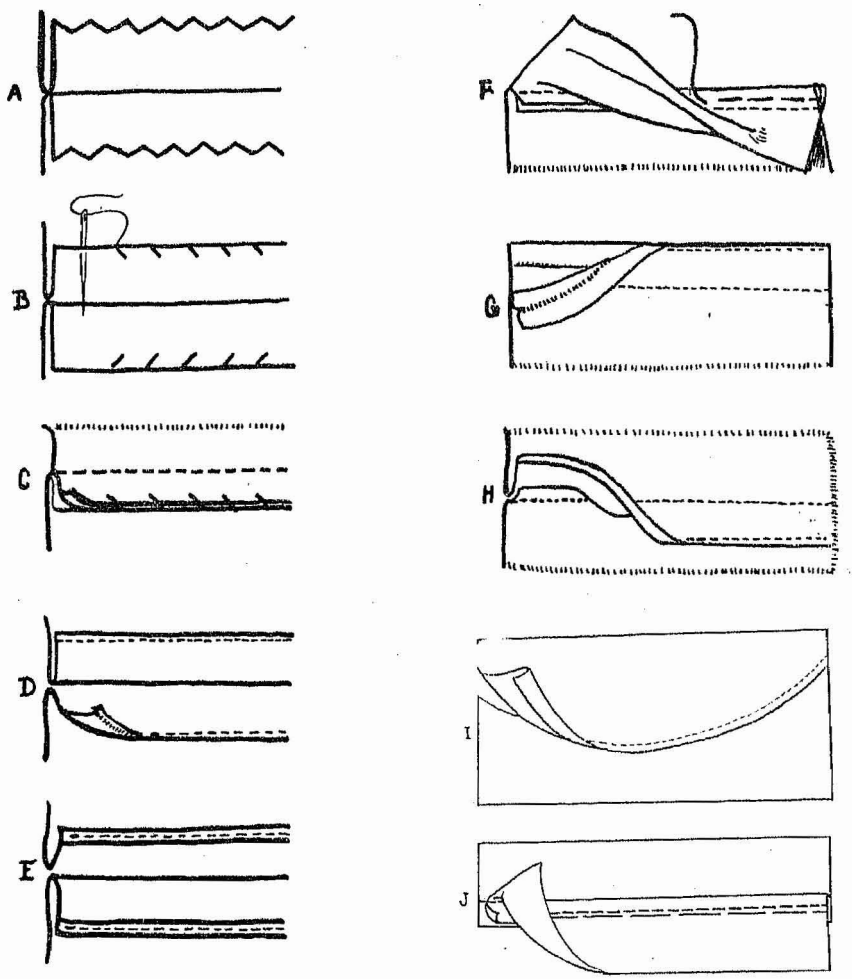


Fig. 7—(A) Plain seam; Edges pinked; (B) Pressed open edges overcast; (C) Edges overcast together; (D) Edges pressed apart, turned under and stitched; (E) Edges bound; (F) French seam; (G) False French seam; (H) Fell seam; (I) Lapped seam; (J) Welt seam.

in many combinations may be used. Plan so the right amount of fullness is held in. When the smocking is finished, press or steam. Before the smocking stitches are put in some workers prefer to gather the material into straight even folds with long gathering stitches evenly spaced. The gathering is pulled up and fastened, then the decorative stitches are made by taking stitches through the fold of each pleat in the same manner as through the dots.

A wave effect can be secured by taking four or five stitches up, catching each fold in the dots, then the same number down to form a V-shape. As the upward stitches are taken keep the thread below the needle, and as the downward stitches are taken hold the thread above the needle. Repeat the length of the smocking desired.

Seams and Seam Finishes

A seam is a line of sewing to hold two pieces of cloth together. When making a garment, note where the seam lines are marked, and unless it is necessary in fitting to alter the size, follow the seam line when sewing.

Until one becomes skillful, it is wise to pin seams before basting. In some materials basting will not be necessary after one has had experience in stitching.

Choosing the right seam—There are no rules which tell us just which seams to use for each garment. The choice of the seam depends upon the texture of the material, the design and type of the garment, and the place in which the seam occurs. The seam must be strong enough for the kind and amount of wear and the kind of cleaning the garment will be given. It must be flexible and light so that it does not detract from the appearance of the garment.

Pinning—Place the seam lines and markings together. Insert pin through the seam line of one piece, then through the seam line of the other piece to make sure they correspond. In pinning, never lift the material from the table and catch just as little material as possible. Place the pins at right angles to the seam lines. When basting or stitching seam lines remember to place the heads of the pins toward the side that will be next to the right hand. They can then be more easily removed. In pinning long, straight seams, the cloth should be placed flat upon the table. It is usually best to pin the entire length of the seam line before basting or stitching.

Basting—Long or bias seams should always be basted. The basting should be placed so it will just escape being caught in the stitching. In garments that are to be fitted, place the basting just inside the seam line; that is, toward the garment. This will cause the garment to fit more closely and when the real stitching is put in and the basting removed, it will tend to "ease" the garment and make sure it is not too snug.

Stitching—Hand or machine stitching should be placed in a good even line directly on the seam line. Remove bastings immediately after the permanent stitching is made. In stitching the seams which are only pinned, do the guiding of the garment through the machine with the left hand and the forearm, and leave the right hand free to adjust the seam and to remove each pin just before you come to it.

Pressing—As soon as a seam is permanently stitched and the bastings are removed, it should be pressed in the position it is to remain in the garment. All seams except opened plain seams should be turned toward the front of the garment.

The Plain Seam—This seam is appropriate for almost all materials if the edges are properly finished.

It is made by placing the two edges of the material together and stitching about ⅜ to ¾ inch from the edge. If the material does not ravel the edges may be left plain or pinked to improve their appearance. (Fig. 7-A). If the material ravels the edges may be overcast, picoted, bound, or turned under and stitched.

Overcasting—(Fig. 7-B and C)—The edges may be overcast separately or together, depending upon the position of the seam and the material.

Binding—(Fig. 7-E)—If seams are bound the binding must be light weight and pliant so that the finished seam will not be bulky. Silk seam binding which is ribbon-like with selvages on each edge may be purchased. The color should match that of the garment. Apply with one stitching.

Picoting—In sheer material the seam may be hemstitched close to the stitching of the seam, then cut for a picoted edge. This is a good finish provided that good hemstitching work can be secured and if the cost is not too great.

Turned Under and Stitched Finish for a Plain Seam—(Fig 7-D)—The seam is pressed open. The edges are then turned back and stitched either by hand or machine.

French Seam—(Fig. 7-F)—This seam is used for some types of underwear, for children's garments, in some wash dresses, and sometimes in very sheer materials such as chiffon. It is more successful when used on a straight line than on curves. In years when straight line garments are fashionable it is more often used than when fitted types are worn.

To make, place the wrong sides of the cloth together, matching the seam lines. Seam on the right side of the cloth ⅛ inch outside the seam lines. Trim the raw edges, crease the seam flat, then turn so that the two right sides are together with the first seam exactly on the edge; baste and stitch so as to cover the raw edges of the first seam. This should be a dainty seam 3/16 inch or less in width when finished.

False French Seam—(Fig. 7-G)—This seam is really a plain seam with the edges turned in toward each other and overhanded or stitched together. It is often used in the armscye and is a useful finish in many situations.

Fell Seam—(Fig. 7-H)—This is used wherever a flat finish is desired, as in pajamas, bloomers, smocks, middy blouses, men's shirts, etc.

Stitch as for plain seam, clip one raw edge to ⅛ inch, then turn the wide edge over the narrow one; lay both flat on the cloth and stitch the edge of the fold to the cloth. When both stitchings come on the right side, as it usually does, this seam serves as a decorative finish.

Hemmed Seam—This seam may be made by a single operation by using the machine hemmer. Consult the instruction book for sewing machine attachments.

Lapped or Tuck Seam—(Fig. 7-I)—The lapped seam is often used when joining yokes to waists or skirts or any joining along a curve.

Fold under the edge of the top piece and baste just above the seam line. Lay this over the second piece and stitch on the seam line.

The edges are trimmed to ¼ inch or ⅜ inch in width and may be left unfinished, pinked, overcast, bound, or the upper edge may be folded under and stitched by machine or by hand.

Welt Seam—(Fig. 7-J)—Stitch as a plain seam, remove bastings, turn edges of seam in direction desired, trimming under one narrower than upper one. Baste close to the turned edge and stitch on right side.

Hems

A hem is a finish used on the edge of garments or other articles to prevent the material from tearing and to improve appearance of the edge.

The edge of the material may be folded once or twice according to the type of hem desired. A guide for measuring and marking a hem may be cut from pasteboard (Fig. 8-A).

Single Fold Hem — The single fold hem is used on garments of materials which do not fray, or where a very flat finish is desired, as in thick heavy silk or woolen materials. The upper edge of the hem may be pinked, then slip stitched or catch stitched (Fig. 8-B); it may be bound with bias binding, and the latter blind hemmed to the garment (Fig. 8-C); or it may be finished with a strip of flat binding, one edge of which is stitched to the hem, and the other blind hemmed to the garment.

Double Fold Hem — The double fold hem is used in lighter weight materials such as light weight woolens, silk or rayon, and light weight cotton and linen. The first fold may be hade ⅛ inch or less for a narrow hem; ¼ inch for a wide hem. The first fold should be turned and

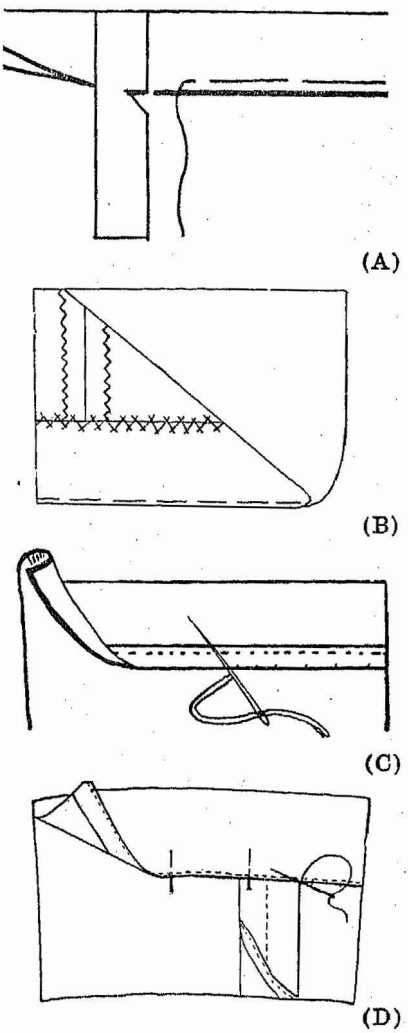


Fig. 8—(A) Guide for measuring hem. (B) Single fold hem, catch stitched. (C) Bound. (D) Double fold hem, hemming stitch.

stitched by machine, then the hem turned the desired width, pinned, basted, and hand hemmed. (Fig. 8-D) A bind hemming stitch, a slip stitch, or a perpendicular hemming stitch may be used. The double fold hem may be machine stitched on cotton undergaments and on skirts which have tucks or some other stitched decoration and the stitched hem is needed for part of the decoration. All other hems should be sewed in by hand.

Hems in Stretchy Materials—(Fig. 8-B) The catch stitch is a satisfactory stitch to use in knitted or other stretchy materials as it allows for elasticity.

Hems on Circular Skirts—A facing or a narrow hem is usually preferable on a circular edge. A hem about ⅜ inch wide may be stitched in; sometimes in sheer materials the garment may be picoted ¼ inch below the hemline then turned and hemmed down by hand. A wider hem is often desirable on growing girls' dresses. In wool the curved edge may be gathered and the fullness shrunk out, then the edge bound, or a seam tape applied and the hem sewed down by hand. In other materials the fullness may be removed by small darts or gathers (Fig. 9). Before hemming a circular skirt hang it up for a day or two to allow material to sag.

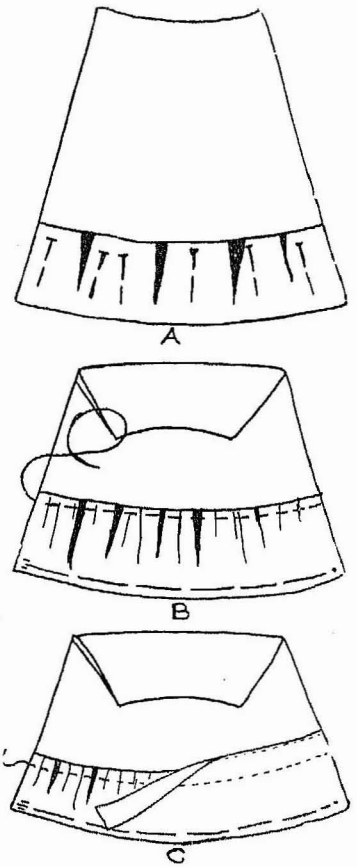


Fig. 9—Hem on circular edge; (A) Pinning in the hem; (B) Basting; (C) Finishing.

Hems With Mitered Corners—When putting in a wide hem the corner is mitered to avoid bulkiness. These are desirable corners for luncheon sets and napkins. Turn the hem and crease, being especially careful to crease well at each side of the corner to be mitered. Open the hem, then fold the corner over, making the fold pass through the point where the creases cross. Cut off the corner (Fig. 10-B) leaving a small seam allowance. Baste the hem in place, turning under the seam allowance of

one hem at the corner and lapping this over the edge. This makes a straight folded edge from the corner at the outer edge of the hem to the corner made by meeting of the folded edges to be hemmed. Hem the miter by hand without catching through to the right side.

Hems with Square Corners—On napkins and curtains where a mitered corner would have no decorative value the square corner is used. To make, fold a hem on both sides of square. Then unfold and cut along the lower horizontal crease to within one-fourth inch of vertical crease; (Fig. 10-C) from there cut vertically upward to edge of cloth. Refold first one side then the other.

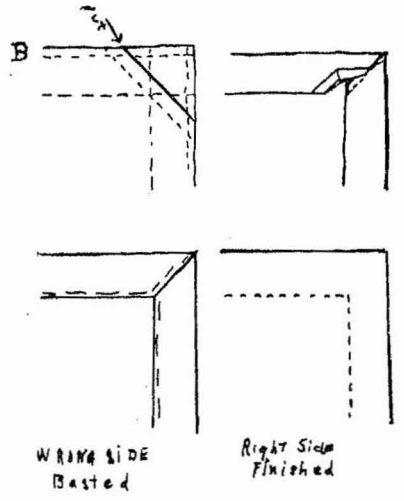
Cutting and Use of Bias Strips

Bias Strips—Any material cut on the true bias stretches in such a way that it can be fitted into spaces or on surfaces where straight material would wrinkle, pucker, or be clumsy.

Directions—Fold the material at one corner, so the lengthwise threads are parallel with the crosswise threads. The selvage, where it turns, will form a right angle. Crease or otherwise mark this fold, then cut through it. This gives a true bias edge. Measure at right angles from this bias edge the width desired for the bias strip. (Fig. 11). Do this at several places. These points may be connected with a chalk or pencil line made with a ruler. Cut through this line. If several bias strips are needed, mark them all before cutting.

If the material to be cut has a twill or diagonal weave, it must be cut so the twill will run across the strips, not along their length.

In joining bias strips the seams always follow the threads of the material, therefore it will be on the straight of the material. If made across the strips, they will stretch, be clumsy, and quite conspicuous. Place the two strips so that the diagonal ends are together (Fig. 11-B).



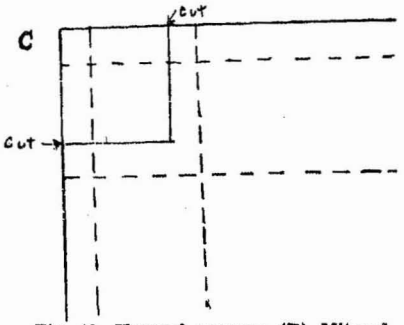


Fig. 10—Hemmed corners: (B) Mitered corner; (C) Square cut corner.

Let one end slip by the other ¼ inch, which is the seam allowance. Sew or stitch from the angle formed where the edge of the strip crosses the edge of the other, to the corresponding point on the other side. If this is done the edges of the strips will be on a line when they are pressed.

When bias is needed in quantities, as on aprons, take a yard of 36-inch material and crease on a diagonal line as AB (Fig. 12-1). Cut on this diagonal line and join the two sections as for small pieces of bias so that the bias lines AB will form the top and the bottom of the strip. Parallel to the bias edge mark lines across as far apart as the width of the binding desired until the whole piece of cloth is lined. Then join the two ends of this strip to make a cylinder, leaving one end projecting the width of one row of binding. (Fig. 12-3. Begin at the point thus made and cut along the marked line.

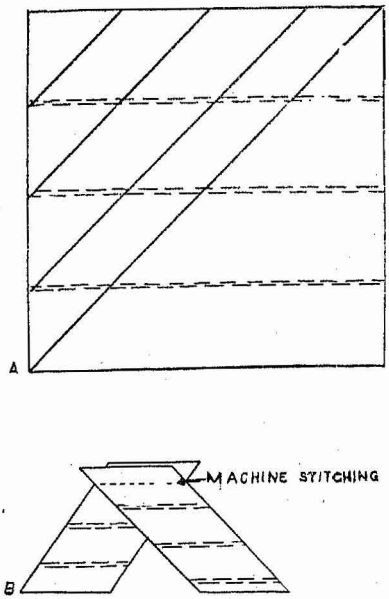


Fig. 11—Bias: (A) Material marked for cutting bias; (B) Seam lines matched to join bias

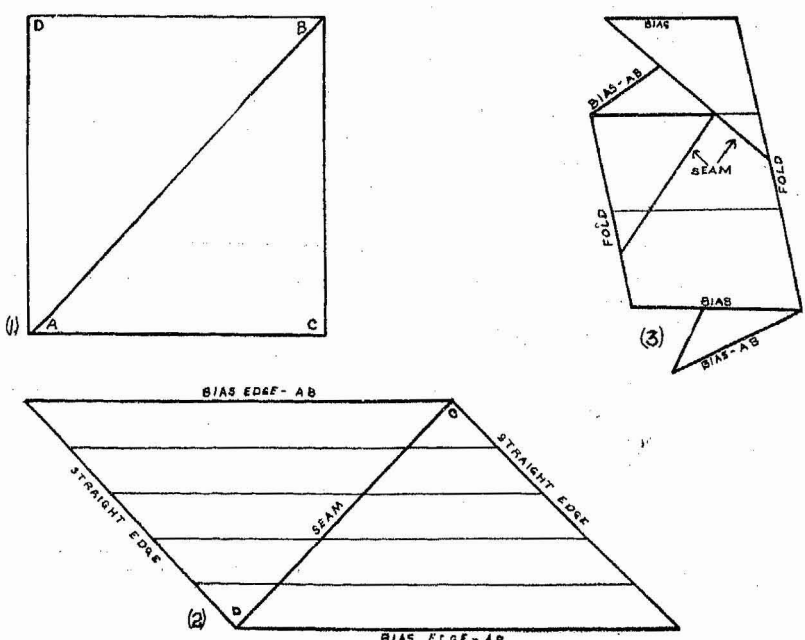
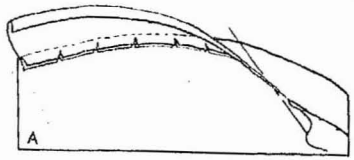
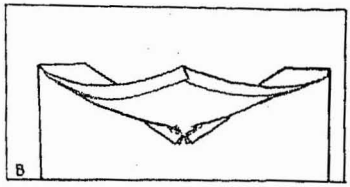


Fig. 12—Method of joining continuous bias.

Edge Finishes

Bias Facing—(Fig. 13-A)—Bias facing is used to finish curved edges where it would be difficult to make a hem. It may also be used in place of a hem, as in circular skirts, for trimming, etc. Use strips of material cut on a true bias. Lay the right side of the bias strip to the right side of the garment, placing the edges together evenly. Baste a narrow seam, then stitch. Remove bastings. Make slashes so curved edges will not draw, and turn facing to the wrong side of the garment, bringing the seam just to the under side so there will be no danger of its showing from the right side. Press. Baste at this sewed edge to hold firmly in place while the other edge is being stretched to fit the wider curve and turned in. Baste this curved edge down on the garment and sew by hand unless stitching (either machine or decorative) is used for trimming. The effect from the right side is that of a hem.





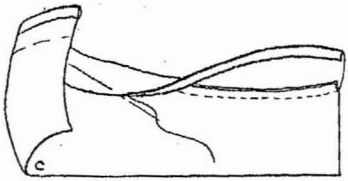


Fig. 13—Facings. (A) Bias facing. (B) Shaped facing. (C) Piped facing.

Shaped Facing (Fig. 13-B)—Used to finish neck, sleeves, hems, and shaped edges. Before cutting the material for facing, the part to be finished must be cut or shaped as completed line is to remain. Then make a paper pattern by laying paper for cutting design on garment. Cut the inner and the outer edge of paper pattern the desired shape. Lay the paper pattern on the cloth and cut the facing. A garment may be finished by applying the facing to either the right or the wrong side of the garment.

For a right side facing, to be used as trimming, pin the right side of facing to the wrong side of garment, edges even. Baste and sew in place. Clip the seam at right angles to edge of stitching on curves to make the facing lie flat. Then turn the facing to the right side of the garment so that the stitching line is at the very edge of the fold. Baste close to the folded edge to hold the facing in place. Then turn other raw edge under one-fourth inch and baste flat to garment. The last stitching may be decorative or machine stitching.

Piping—(Fig. 13-C)—Piping of the same or contrasting fabrics or color is used on the edges or seams of garments for decoration. Bias or

straight strips may be used. A true bias can be used on both curved and straight edges. A straight strip may be used only on a straight line. Pipings appear as narrow folds which show just a line of color. The width is determined by the design.

To apply the piping, fold the strip lengthwise through the center or a little to one side of the center. Turn under the raw edge of the material to which the piping is to be applied and apply the folded piping. Stitch close to the edge on the right side. The raw edges of the strip may be overcast or the wider turned over the other and blind stitched to the garment.

To attach the piping so the stitching will not show, place piping on the right side of the material with the raw edges of the piping extending a little beyond the edge to be finished. Baste and stitch so that the desired width of piping shows. Turn and press the seam down against the wrong side of the garment.

Cording—Is put on in the same manner as piping. Sew the piping over the cord using a close running stitch.

Bias Binding—Single—(Fig. 14-A)—For single bias binding cut the bias strips four times the width desired when finished, unless the binding is to be more than one-half an inch wide. In that case, cut the strips twice the desired width, plus one-half inch for the turning of the two edges. Lay the right side of the strip on the right side of the material with the edges exactly together (if to be one-half inch or less in width). Baste, then sew a seam the width of the finished binding. Turn the bias strip over the edge of the material. Be sure to make the fold of the bias binding come snugly over the edge of material, turning it straight over so that it will not twist. Then turn in the edge so the binding on the wrong side comes just to the stitching. Slip-stich the fold to the line of stitching. Done in this way, no sewing will show on either side of the work.

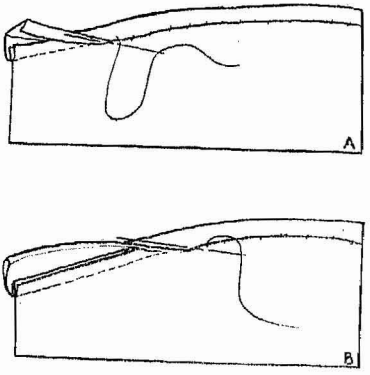


Fig. 14—Bias binding. (A) Single. (B) Double.

Sometimes the binding is put on with two machine stitchings. Baste the wrong side in place with the edge just covering the first stitching. The second stitching is done from the right side and should be stitched just below the binding, so that the binding when pressed will almost cover the second machine stitching.

It is well to learn how to use the sewing machine attachment for putting on bindings. It is especially useful when making aprons, children's clothing, and household articles.

Double—(Fig. 14-B)—Cut a bias strip four times the width desired

plus seam allowance on each edge. Press through the center, baste the two raw edges of the binding to the edge of the garment with the right sides together. Roll the binding over the edge and hem down by hand, or two machine stitchings may be used as in applying single bias binding. A double bias binding should be narrow and resemble a cord finish.

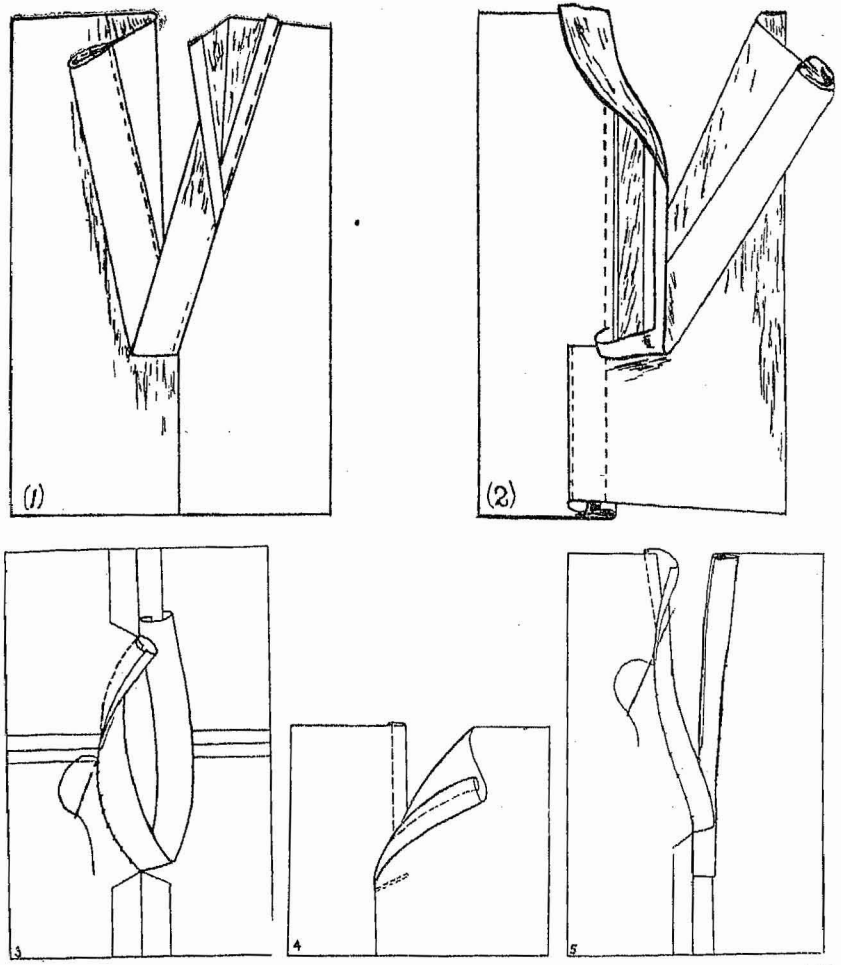


Fig. 15—Plackets. (1) Continuous. (2) Modified continuous (wrong side with extra fold cut away). (3) Continuous placket on side seam. (4) Hemmed placket. (5) Two piece.

Plackets

Hemmed Placket—(Fig. 15-4—A narrow hem may be made on each side of the opening, the upper one folded under so as to form a lap which

is held in place by a line of stitching at the bottom, or a narrow hem may be made on the under side and a wider one on the top side. This type placket is used most on children's garments and some types of underwear.

Continuous Placket—The continuous placket (Fig. 15-1) is used for openings in fine materials. It may be finished with straight or bias bindings. No stitching shows on the right side of the garment. The binding should be a little longer than twice the length of the finished placket and the width should be twice the desired width, plus two seam allowances. Place the right side of strip to the wrong side of garment, holding the garment toward you. With the garment up so as not to lay the garment in pleats, baste and stitch to the end of the gash, turn the garment and stitch the other side of the placket in one continuous line. Fold the binding to the right side of the garment, baste, and stitch. If this placket is being made at one end of a seam, as in a skirt, the first sewing must be on a line with the skirt seam. The upper side of the placket is turned back and caught into the belt. The underside of the placket is left to extend out and to make a lap at the opening.

If the placket is being made on the side seam of a dress, overhand the upper edges of the binding together. Fasten with a hook and eye and snaps (Fig 15-3).

Modification of Continuous Placket—This is desirable when as little thickness as possible is required, as on wool. This placket (Fig 15-2) consists of a binding on the left side and a facing on the right or upper side. Follow the directions for a continuous placket through the first stitching; usually, however, placing the piece on the left side of the placket. Also crease the piece across the bottom of the placket. Baste the folded edge of the left side in place and stitch as for continuous placket. Continue the crease made in the middle of the piece to the end of the right side. Cut away the material on the right side to ¼ inch of middle crease and to ½ inch of bottom crease. Turn this facing flat on the garment. Stitch flat to garment by hand. Stitch across the bottom of facing on right side of placket.

Shirt Sleeve Placket (one piece)—(Fig. 16)—Cut a straight facing twice as long as the placket and three inches wide. Sew to placket opening as first seam in a continuous placket. Slash ⅞ inch from one side to depth of placket Line C D, (Fig. 16-1), cut in ⅛ inch toward narrow side for edge turn. Cut off wider end about 1¼ inch below placket opening and shape into a point. (H, I, J. Fig. 16-I). Face down and stitch on line CD (Fig. 16-I). Then turn seam edge G H, about ¼ inch. Fold and stitch along line E X (open edge of placket), pull thread through and tie at point X. Baste and stitch from point B to H, I and J; and up to X and across to Y. Be sure that stitching lines meet exactly at point X.

Two-Piece Placket—(Fig. 15-5)—When making a two-piece placket on a seam opening of a skirt, snip the seam at the bottom of the placket, apply a facing to the lapping edge, and a binding to the extending edge. Sew

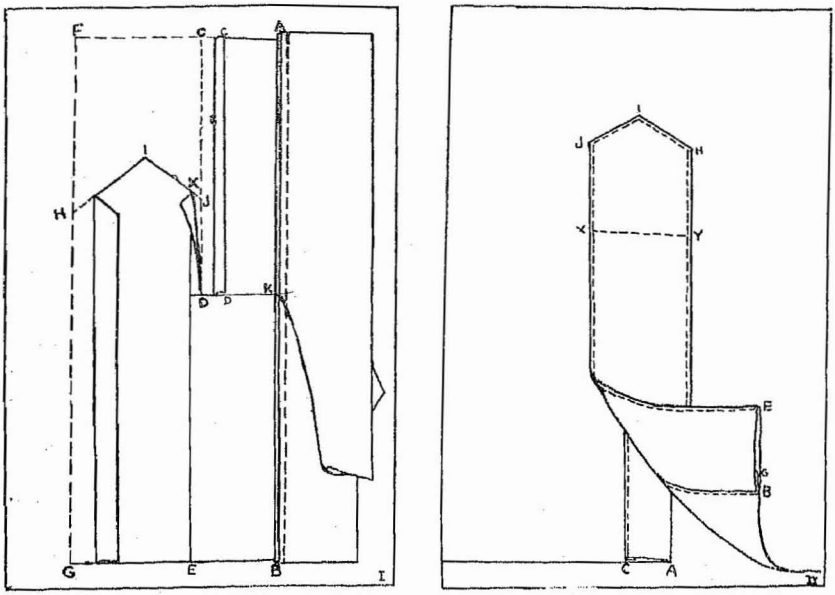


Fig. 16—One piece shirt sleeve placket.

ends of the placket pieces together at the bottom of the opening. If the garment material is heavy, use a thinner material for the binding. If the placket is to be made on a seam opening of a dress snip the seam at both ends of the placket and proceed as above.

Slashed Opening—Bound—Cut a bias or straight strip about 1¼ inches wide and ½ inch or so longer than the opening. Bind as for bound buttonhole. For method of making bound buttonhole, see page 32.

Faced—(Fig. 17)—Lay the right side of facing to right side of garment. Outline the opening with machine stitching, bringing the stitching to a point at the bottom. Slash carefully to the stitching at the point. Pull facing through to the wrong side and press. Turn the edges of the facing back and stitch.

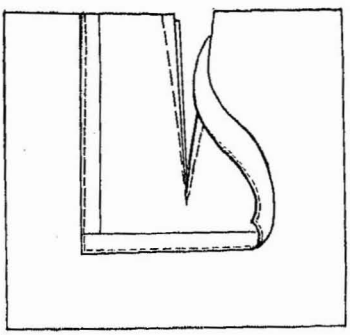


Fig 17—Facing for slashed opening.

Fasteners

Spacing Buttons—Mark the position of the buttons on the garment, being careful to observe the correct distance between them, and the dis-

tance of each from the edge of the hem. Then determine the position of the buttonhole. The button does not stay in the center of the buttonhole. Its position is determined by the strain put upon it. Mark the buttonhole about ⅛ inch from the center of the button away from the hem edge.

Worked Buttonholes—Make the buttonhole mark 1/16 inch or more longer than the diameter of the button which is to pass through it, depending upon the thickness of the button.

Cut on the line, (Fig. 18-3) making sure you cut on the thread. Use either a pair of buttonhole scissors or a small pair of scissors with sharp points.

Overcast to prevent fraying and to hold the two edges together. (Fig. 18-4). Some workers like to machine stitch around the place marked before cutting the buttonhole. If this is done a fine needle and thread should be used. Hold the slit along the cushion of the first finger of the left hand with the inside end at the right, if the buttonhole is at right angles to an edge. Hold it loosely so as not to stretch the opening. At the right hand end insert the needle between the two layers of cloth and bring it out exactly below the end of the slit. The distance from the edge will be governed by the size of the buttonhole and the kind of material. That which ravels easily would have to have longer stitches. Make three to five stitches on either side, according to the length of the buttonhole.

Hold the raw edge to be covered along the upper part of the cushion of the left forefinger with the hand parallel to the body in taking this stitch. Brace the needle firmly with the left thumb and forefinger. With the right hand take the threads at the eye of the needle, carry them around and under the point of the needle in the direction in which you are working, drop the loop at the back of the cloth. (Fig. 18-5, 6, and 7). Push the needle through and draw up the thread in line with the stitch and on a plane with the cloth. The stitch may be made from right to left.

Avoid a joining. If unavoidable, leave an end of the old thread. With the new thread, take the first stitch up through the purl of the last stitch made, leaving an end of thread. Hold these two threads along the raw edge and continue with the buttonhole stitch, covering up the ends with at least two stitches.

A good buttonhole requires a tight, even purl, stitches of uniform depth and space, which are perpendicular to the edge. Make the stitches as shallow as the strength of the buttonhole and the character of the cloth will allow. In general make buttonholes with thread two sizes coarser than that used in making garment.

Sewing on Buttons—Buttons are used as fasteners and decorations. Do not use button decoration when it is not in some place that suggests a fastening.

To attach the button use thread one size coarser than that used for buttonhole. Cut the thread when sewing is finished. Breaking stretches

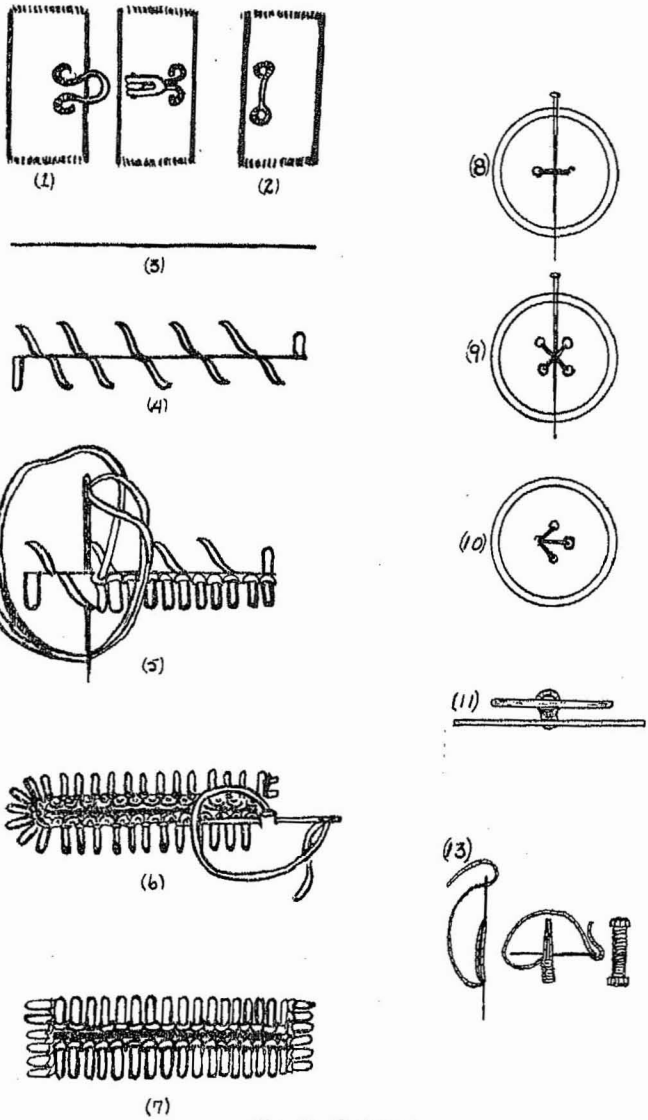


Fig. 18—Fasteners

the thread so the break is made back in the sewing, thus causing the ends to work loose.

Take a tiny stitch on the right side of the garment just where the button is to rest. The button will conceal the knot. Push the needle up through one hole in the button, then down through the other, passing

through to the wrong side of the garment. Make the stitch parallel with the buttonhole which is to be used with the button. Place a pin under the one stitch which is holding the button in place (Fig. 18-8 to 11). Continue sewing, up through one hole and down through the other, and over the pin until enough stitches have been placed to hold the button securely. Remove the pin. It has kept the stitches loose so the button may be drawn away from the cloth just a bit, making a space for the buttonhole to rest in. Bring the needle through to the right side between the button and cloth near the stitches. Wind the thread about the stitches so the thread will not wear out and loosen the button. Push the needle through to the wrong side, take three or four tiny stitches, close to the other stitches, looping the last one or two to secure it. Then cut the thread.

Hooks and Eyes—(Fig. 18-1 and 2)—Hook—Working from right to left, sew over the circle on one end of the hook, using the buttonhole stitch and placing stitches close together to cover the wire, then pass the needle between the two thicknesses of cloth to which the hook is being sewed, bringing it out at the left of the bill end of the hook, just beyond the end. Opposite this point on the right side of the bill, put the needle into the cloth and bring it out in the same place on the left side. The thread should draw into the very end of the hook. Repeat several times. Stitches so placed are not so quickly worked out as are stitches made over the under part of the hook where the eye rubs over them. Then sew the other circle end of the hook. Since the greatest strain is placed on the end of the bill it is better not to end the thread there.

Eyes—For eyes bent or straight, follow directions for sewing on hooks. Be careful to use the buttonhole stitch all around the wire circle. Fasten thread securely.

Loops—Occasionally there are places where wire eyes of any sort are not desirable, then a thread loop may be made (Fig. 18-13). Use a strong thread with a knot, placing the loop just as you would a straight wire eye if it were being used. Bring the needle through the cloth from the under side to the upper at the left end of the space. One-fourth inch to the right put the needle down again, bringing it up through the same spot on the left. Place about four threads across this space. Once at each end take a tiny stitch at right angles to the threads being placed instead of passing the needle under the space. This will prevent the material from drawing up while working or when using the loop. When the desired number of threads have been placed, the needle and thread should be at the left end of the work. Work to the right, cover the threads with blanket or buttonhole stitches pushing them close together. Inserting the needle under the thread with the eye end first will help to avoid catching into the material. The purl of the stitch should come toward the worker. When the strands have been completely covered with blanket stitches pushed close together, then at the right hand end of the loop, close to the last purl, push the needle through to the wrong side of the work, take two or three tiny stitches, loop the last stitch, then cut the thread.

Snap Fasteners—Snap fasteners may be used on garments that do not require hard laundering. They are used when an invisible opening is desired, yet where there is no strain.

Sew with several buttonhole stitches into the holes and over the edge of the fastener. Pass from one hole to the other through the cloth, not on top of the fastener. Fasten the thread on the wrong side of the cloth by taking two or three tiny stitches in the cloth and by looping the last stitch. Cut the thread. Never break it. Do not let any of the stitches show on the right side of the garment. Snap fasteners should make an invisible fastening. The part which has the little knob on it usually has a flatter back than the other piece. If this flatter piece is sewed to the upper side of the garment opening, a worn spot will not appear so soon where the fasteners are pressed together.

Corded Loops—(Fig 19-A)—Cut a bias strip the required length and width. Sew the end of the cord to be covered and the end of a piece of string to one end of the bias strip. Fold the bias through the center enclosing the string, and join seam edges to fit the cord to be covered. Baste and stitch. Pull the string from the inside, turning the material over the cord. Keep the seam from twisting. Cable cord is used for a firm cording. For softer cording several strands of Germantown yarn may be used.

For fastening loops often no cord is used. The bias material is simply sewed and turned with the string as described.

Attaching Loops for Buttons—(Fig. 19-B)—A satisfactory way to do this is by facing them on. Sew loops to the edge of the opening on the right side of the garment. Turn the material under, leaving the loops extended. Face on wrong side using an invisible stitch.

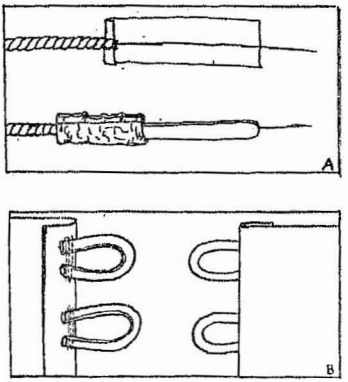


Fig. 19—(A) Covering cord with bias strip. (B) Attaching loops for buttons

Bound Buttonholes—

1. Mark place for buttonhole carefully.
2. Cut a bias or straight strip 2½ inches wide and one inch longer than the buttonhole.
3. Place center of strip on marked line for buttonhole.
4. With ruler, mark line through center of this binding, the desired length of the buttonhole. (Fig 20-A). At each end of this line mark a short perpendicular line the width you wish the binding to be on the right side. Connect the ends of the above perpendicular lines to form a rectangle.

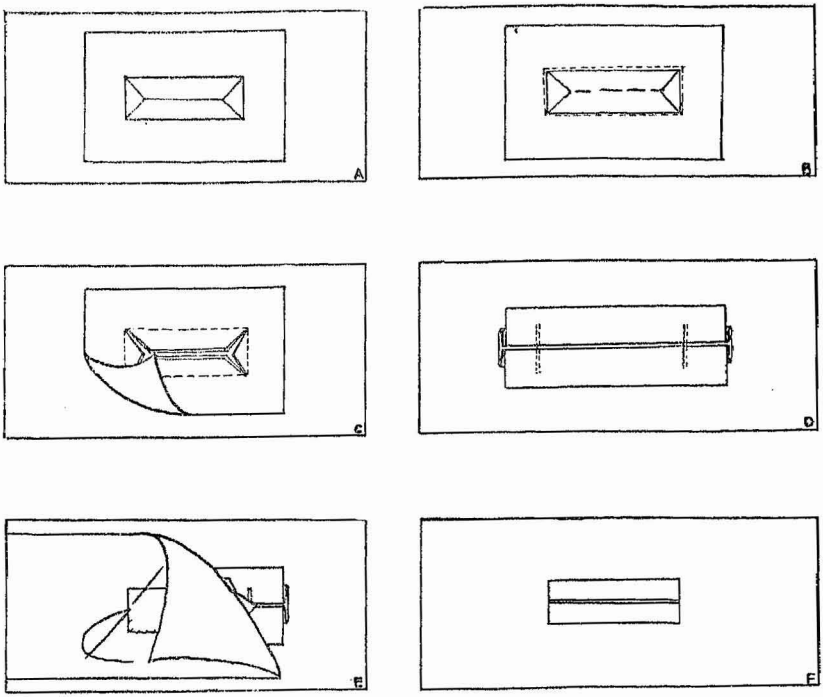


Fig. 20—Steps in making bound buttonhole.

5. Stitch around the rectangle. Start the stitching in the center of the lower long side, count the stitches across the end first stitched and have the same number across the other end. Stitch square corners. (Fig. 20-B).
6. Cut on center line up to ¼ inch of ends. Clip the ends diagonally, well in toward the machine stitching. (Fig. 20-C).
7. Turn the facing to the wrong side and stretch out the fullness.
8. With the fingers press the seam flat so that the strip serves as a binding. Each side should fill exactly one-half of the opening. Overcast these edges together temporarily to hold in position while completing the buttonhole.
9. The binding should form an inverted pleat at each end of the buttonhole. These pleats can be held in place by turning back the triangular points and stitching the pleats to them (Fig. 20-D).
10. For wash dresses and many woolen garments stitch from the right side close to the binding. When this stitching is well done it can hardly be seen after the pocket has been pressed for the bias binding covers the machine stitching.

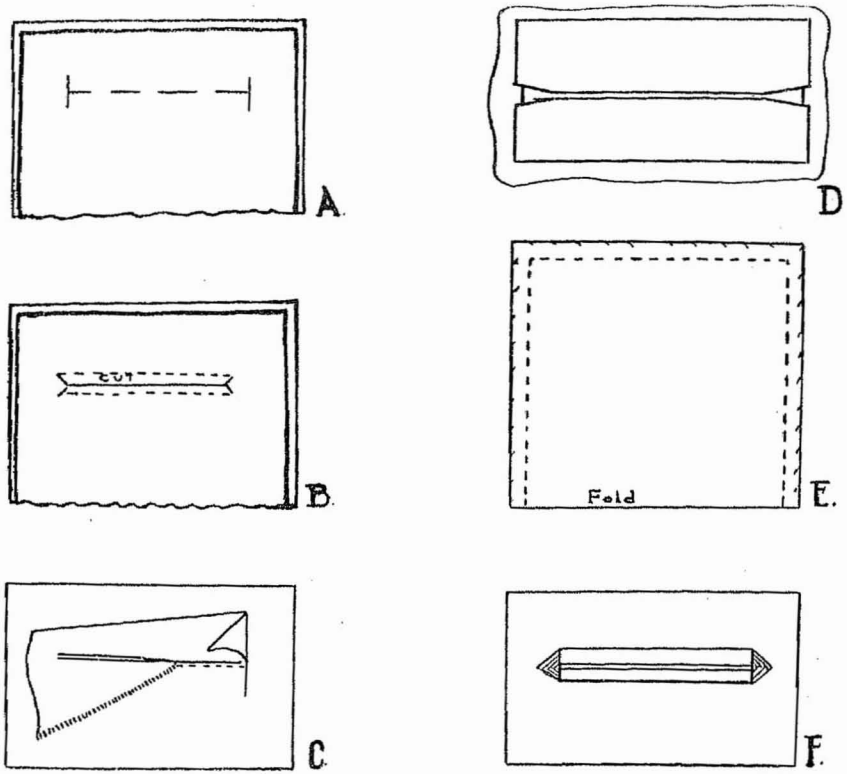


Fig. 21—Steps in making setin or bound pocket.

11. To finish on the wrong side turn the edges of the binding under and sew through the fold when stitching on the right side as described above (No. 10).
12. To finish on the wrong side where a facing is used in the garment, spread the facing over the buttonhole and hem down in a rectangle around the buttonhole (Fig. 20-E). To get this effect cut the opening with triangular ends as in cutting the buttonhole.

Pockets

Set-in or Bound Pockets—Mark the place indicated on the pattern for the pocket slit with colored thread (Fig. 21-A). Cut the pocket one to two inches wider than this marking. Lay the right side of the pocket to the right side of the garment the upper edge of pocket one inch above the line of colored basting (Fig. 21-B). Mark the line for the slit through the pocket with running stitches. Proceed as for making bound buttonholes.

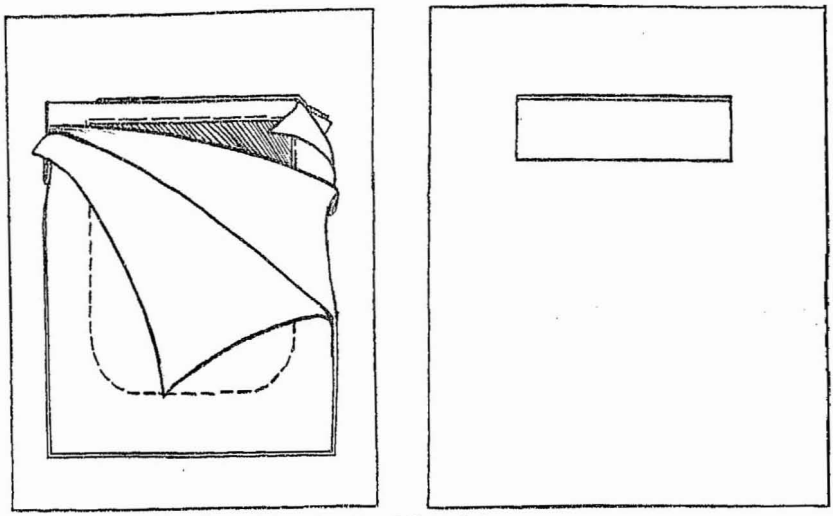


Fig. 22—Welt pocket.

Fold the pocket in half with all edges even. Stitch around pocket edge and overcast.

The bound pocket may also be made just as a bound buttonhole with a narrow facing strip. The material forming the pocket is then sewed to the facing on the wrong side.

Welt Pocket—(Fig. 22)—The welt pocket is made like the set-in pocket up to the point where it is pulled through to the wrong side. The top edge is folded back to the seam line and basted. The lower binding is folded so that it completely fills the opening and touches the seam on the upper edge. Baste firmly. Stitch across the lower edge just below the binding on the right side and across the ends on the wrong side catching the triangular corners. Fold the pocket strip up so the edges are even and stitch.

Skirts

Skirt on a Camisole—The camisole is prepared in a similar way to the princess slip except that it is cut off at the waist line or the hip line. A round neck is more becoming to most figures than a square one. A narrow hem finishes the bottom of the camisole.

Bind the top of the skirt with firm binding. Attach the camisole to the skirt with hand sewing so that the camisole may be removed easily and frequently for laundering.

Marking the Bottom of the Skirt—(Fig. 23)—When two people are working together, the one to be fitted should stand on a pedestal or on a smooth floor and have the one who is marking the skirt length place a

row of pins or a chalk line where the edge of the hem is to come. This line can be found by using a yard stick. Keep the yardstick perpendicular to the floor at all times. Mark on the skirt the number of inches which it is desired that the skirt shall "clear" the floor. Baste on line marked. Mark the width of the hem with a guage, baste and hem.

A straight or pleated skirt should be hemmed first and the skirt then hung from the top.

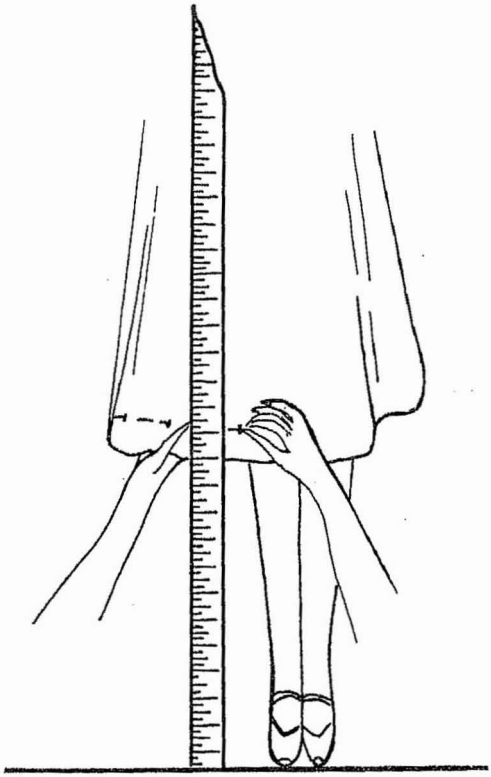


Fig. 23—Marking length of skirt

Sleeves

A sleeve can be set in to look well only if the armscye is properly shaped. The armscye line should appear as a straight line running straight from the end of the shoulder bone down the front and the back to the point where it disappears in the underarm curve. The garment must be wide enough across the back at the center of the back armscye so that there will be no danger of the sleeve pulling out. To locate the line for the armscye at this point, place the forefinger just at the end of the shoulder bone and the thumb under the arm. This line from the finger to thumb after a little practice locates the armscye seam quite accurately.

The direction of the grain of the material is the most important consideration in a well fitting sleeve. The pattern must be placed on the straight of the material when cutting. When placing the sleeve in the armscye, it must be so placed that the grain of the material hangs straight on the upper part of the arm from the highest point of the shoulder to the elbow, and must run straight around the arm at a point opposite the bust line.

The depth of the sleeve cap is also important. Eddy and Wiley in Pattern and Dress Design say, "The sleeve cap should be deep enough to permit the grain of the material to run straight around the arm, wide enough not to draw, and shaped to give free movement to the arm."

To Set in Sleeves—In putting in the sleeve, place the top of the cap to the top of the armscye so that the grain hangs straight on the arm. Distribute the fullness across the top of the armscye between the two points where the armscye starts to curve under the arm. Hold the sleeve toward the worker; this allows the fullness to be eased in. First pin at the top of sleeve, then adjust the fullness by closely set pins. Then baste with small stitches. Always try on before stitching. (Fig. 25).

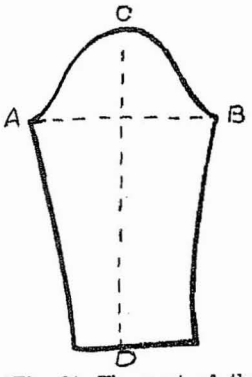


Fig. 24—The part of the pattern above the line AB is called the cap. Line CD marks the straight of the goods and is at right angles to line AB.

Remember that the sleeve seam may fit into the garment in line with the underarm seam of the dress, or it may come a little in front of the dress seam, but it never is back of it; that the lengthwise grain of the material should fall directly in line with the top of the shoulder, and that the crosswise grain should be parallel with the floor. Remember to pin in a sleeve before basting, and do not try on garment with only one sleeve in place as it pulls the garment to one side.

The armscye seam is usually a plain seam. It may be finished (a) with bias binding for silk or wool that ravels, (b) by overcasting each edge separately for heavy cotton and wool, (c) by turning the raw edges together and stitching — either by machine or by hand—for light weight cotton or silk. A fell seam is sometimes used on a tailored blouse.

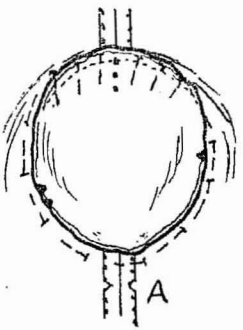


Fig. 25—Putting in a sleeve.

Collars

Cutting a Collar Pattern—Quite often it is desirable to cut a collar to fit a particular neckline. This is especially true when making over or renovating an old dress.

To cut a paper pattern for the neckline of a dress, be sure the shoulders fit well; then fold the dress or waist down the center front and back with seams matching, and pin. Lay the back of the dress neck on the straight edge of the paper for the pattern. Be careful not to stretch the neckline.

Draw the neckline of the garment on paper. Cut around neckline, and cut collar the desired shape around the outer edge. The finished pattern

should be about one-fourth inch shorter than the neckline measurement. The collar is then slightly stretched when it is sewed on and so lies more smoothly, hiding the seam.

This makes a flat collar. The amount of roll can be varied by folding small darts along the outer edge. The darts must be put in carefully and the edge of the collar trued to keep a smooth line. These darts will change the apparent shape of the neckline but must not change its size.

Attaching Collar to Garment—Collar with Facing—The first step in attaching a collar and front facing is to lay the right side of facing to the right side of the garment and stitch, then slash. The collar should then be stitched at both ends. Sew one edge of the collar to the neck edge and the other edge to the facing, right sides together. Turn the collar and facing right side out; turn under the seam allowance of the collar at back neck edge and hem into place.

Double Collar—To put a double collar on a garment, pin the neck line of the upper piece of the finished collar to the neckline of the blouse, with the right side of the collar to the wrong side of the blouse. Pin the center of the collar neck line to the center of the blouse neck line. Pin each way to the ends. Baste, then stitch. Clip the edge toward the seam at the curve to let it spring. Turn in the edge of the under part of the collar the seam's width, and baste to the stitching so the raw edges are covered. Hem by hand, being careful to finish the ends very neatly.

Putting On Collar With a Facing — Pin the neckline of the finished collar to the neckline of the blouse, with the wrong side of the collar to the right side of the blouse. Begin by pinning the center of the collar neckline to the center of the blouse neckline. Pin each way to the ends, then baste. This neckline is to be finished with a bias facing. The facing material may be basted on before the collar is stitched to the blouse. Place the right side of the facing to the right side of the collar, with the edge of the facing at the edge of the neck seam. Baste on the same line that the collar was basted to the blouse. Trim the seam even and narrow. Turn the seam and the facing down against the blouse. Then turn in the edge of the facing, making it as narrow as the material allows. Baste flat to the blouse and stitch or hem by hand.

Cuffs—The same methods may be followed for double and single cuffs.

REMODELING

Old clothes may often be made over entirely or they may sometimes be brought up to date by use of such a simple device as a new collar, or by refitting, by changing the length, the position of the belt, etc.

It is not always an economy to remodel an old dress. It does pay, however, when a garment is produced that is attractive, useful, and that will wear satisfactorily.

Preparing old garments for making over—The worn garment should first be studied carefully and its possibilities decided upon. It is worth

spending time on? Can the worn places be cut away? Oftentimes a child's garment can be made from the good parts of one that is too worn to be of value in making an adult's garment.

First air and brush the garment. Then rip. Washing, dry cleaning, or spotting should some next. Some garments may need only to be cleaned, pressed, and a new collar added to make them wearable.

A well-made darn or patch may sometimes be necessary. Make it as inconspicuous as possible.

Before beginning work on old material, press well, being sure the weave is straight. See that bias edges are not stretched. If new material is used with old it is well to shrink it before cutting. Worn places should be discarded. Lay all pieces of the pattern on the material before cutting. Much study and juggling of the pattern may be necessary in order to bring the piecing in the best place. Keep the pattern straight with the grain of the material when cutting. Piecing is usually necessary when making a new garment from an old one. Put the joining seams in as inconspicuous places as possible. Be sure to match grain and pattern. Tucks or pleats may sometimes be used to cover piecings. A decorative seam can often be used—this usually takes the form of a lapped tailor's seam stitched on the right side. Press as you work. Particularly when working with wool, press each seam as it is finished.

CARE OF CLOTHING

A study of the fashion catalogs and magazines will give many suggestions for remodeling old clothes. Care should be taken to use the best principles of line, design, and color when "making over." A garment which is not attractive is not apt to be worn, and if worn will not be enjoyed.

Clothing may be well selected and well constructed, but unless kept in good condition by mending, cleaning, and pressing it will not look well.

Garments should be looked over periodically for rips, tears, loose snaps, missing buttons, etc. The next step naturally is to sew up the rips, darn or patch the holes or torn places, and to sew on the snaps and buttons. It is generally best to mend garments before they are cleaned or laundered.

Darning

When darning use as fine a needle as will carry the thread used. A crewel needle is good for stocking darning. Mercerized darning cotton of correct size is generally used for stocking darns. For garment darns, ravelings of the material to be darned, fine cotton thread, or split silk may be used. The thread used for darning should be as near the weight and color of the material as possible.

Stocking Darn—(Fig. 26)—The holes should be darned as soon as they appear—while they are still small. A darn made on the wrong side is less conspicuous but for tender feet the smoothest surface should be next to the skin. The darn should extend for enough from the hole on all sides

to strengthen the weak places. Until one has become skillful it helps to outline with a basting thread a diamond shape around the place to be darned so that the strain of the darn is not on the same thread of the hose. Do not stretch the hole as the work proceeds. Fill in wrap or lengthwise threads. Start without a knot. Use small running stitches. Let every other thread go over the edge of the hole in crossing it, and the alternate thread go under it. Do not draw the thread tight, leave a little loop to allow for stretching and shrinking.

Garment Darns—All tears are darned with fine running stitches put in as weaving and should be as inconspicuous as possible. Whatever the form of the tear, the stitches must be made in the same direction as the threads of the material. If possible, use ravelings of the material to be darned. Materials like broadcloth may be darned on the wrong side so no stitches show on the right side.

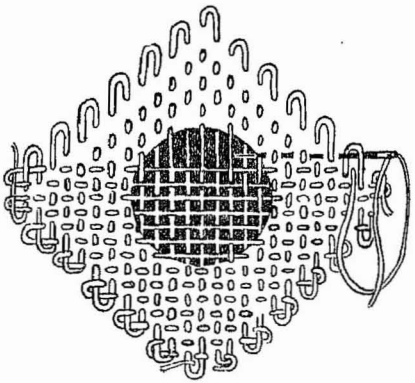


Fig. 26—Stocking darn.

When darning a hole which has been worn, remember that the material around the hole is probably worn thin, so the darning must be extended far enough to strengthen worn parts and to find strong material to support the darn. Sometimes it is well to place a piece of material under the tear or hole and catch it in the darning.

A lengthwise or crosswise tear may be repaired by darning across the torn part using very fine stitches but not drawing the thread tight. (Fig. 27-A). A diagonal tear needs

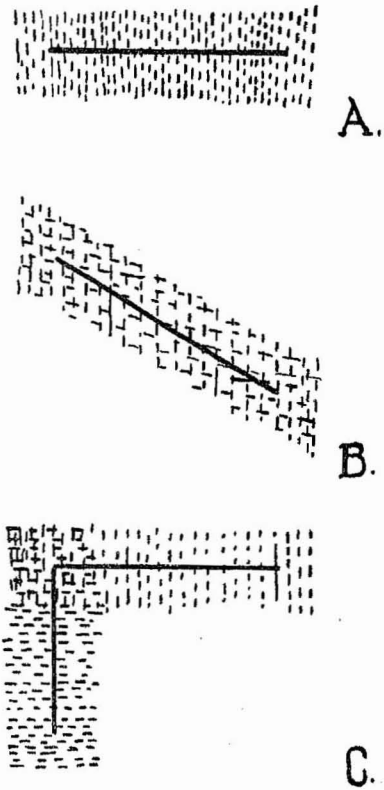


Fig. 27—Garment darns.

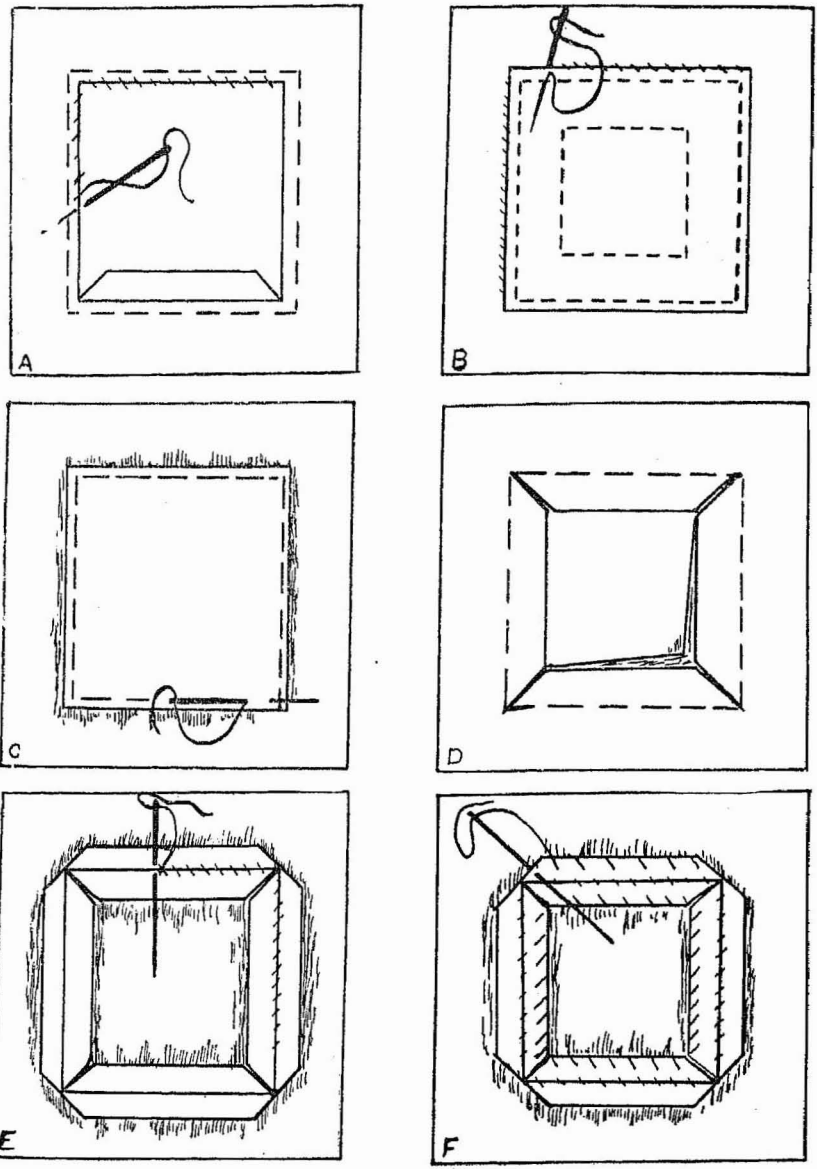


Fig. 28—Patches—(A) Hemmed patch (right side); (B) Hemmed patch (wrong side); (C) Overhand patch basted to right side of material; (D) Overhand patch showing wrong side with slashes made into the corners preparatory to turning seams back; (E) Shows wrong side of overhand patch with seams turned back and folds of seams being overhanded; (F) Shows overcasting of raw edges of seams of overhand patch.

two sets of threads crossing each other (Fig. 27-B). A three cornered or hedge tear may be treated as a lengthwise and crosswise tear, the threads crossing each other at the corners. (Fig. 27-C).

Patching

Patches are used when holes are too large to be darned neatly and firmly, or when they will be less conspicuous than darns. If striped or figured material is to be mended the stripes and figures in the patch must match those in the garment.

Hemmed Patch—This patch is used on undergarments or any article which is frequently laundered. Since it is sewed twice, it is strong and flat, and has no loose edges (Fig. 28-A and B). Cut away worn material, thus making the opening regular in shape. If the material has any design, the patch must be cut to match. Place the patch on the wrong side of the article or garment, pin carefully to place, then baste about one-half inch from the edges. Make a diagonal cut in each corner of the square opening, turn the edges of the patch carefully, baste, then hem to place. The seam width when finished should be even all the way around the patched hole—the width depending upon the weight of material, the weave and the amount of reinforcement required. For firmly woven materials, such as gingham, a half-inch seam is sufficient.

Overhand Patch—The overhand patch is used mostly in outside garments because it is less conspicuous than a hemmed patch. It is less serviceable, however, for it is joined to the opening with only one seam and each corner is held by a single stitch. It is seldom used on articles which require constant laundering. The weight and the weave of the materials determine the width of each finished seam. For firmly woven materials such as ginghams and percales, the edges of the seams should be about one-fourth inch wide.

Prepare the hole in the garment by cutting away the worn portion to a square or rectangular shape, always keeping the cut edge on a thread of the goods. Clip diagonally outward from the corners of the hole one-fourth inch, and crease the edges to the wrong side, basting them in position if the material will not hold the crease easily (Fig. 28-D).

Cut a piece of material for a patch large enough to cover the hole easily. Place this patch on the garment, with the right side of the patch to the wrong side of the garment, matching perfectly the thread and design. Baste in position. Next mark the outline of the hole on the patch. This may be done in several ways. If the material will hold a crease, crease the patch along the four sides of the hole. If the material does not crease easily, use chalk or bastings to mark the size of the hole.

Remove from one side of the hole the basting which holds the patch and garment together. Fold the garment back to the right side of the material and fold the patch on the marked line to wrong side of material. Overhand these two folded edges with small stitches (Fig. 28-E). Con-

tinue the overhanding, removing the basting from one side at a time.

Crease the seam open flat and trim off the patch to within one-fourth inch of the hole. Clip out the surplus material of the patch at the corners, overcast all edges, and press (Fig. 28-F).

REFERENCES

Baldt, Laura I.: Clothing For Women. Philadelphia: Lippincott, 1929.

Eddy, Josephine F., and Wiley, Elizabeth C. B.: Pattern and Dress Design. Chicago: Houghton Mifflin, 1932.

Rathbone, Lucy and Tarpley, Elizabeth.: Fabrics and Dress. Chicago: Houghton Mifflin, 1931.

U. S. Dept. of Agriculture. Farmers Bulletin No. 1530, 1927. Campbell, Maude: Fitting Dresses and Blouses.

University of Illinois, Agricultural College and Experiment Station: Clothing Construction. Circular No. 407, 1933.