



UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE

Extension Division

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CIRCULAR NO. 194

CLOTHING MANUAL

Junior Agricultural Clubs

Lexington, Ky.

May, 1926

Published in connection with the agricultural extension work carried on by cooperation of the College of Agriculture, University of Kentucky, with the U. S. Department of Agriculture, and distributed in furtherance of the work provided for in the Act of Congress of May 8, 1914.

V.A.B.

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CIRCULAR NO. 194

Clothing Manual Junior Agricultural Clubs

By EDITH LACY

INDIVIDUAL EQUIPMENT

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“A good workman is known by his tools.” For the best results in sewing it is necessary to have a few good tools which should be kept in good condition. The sewing basket should include the following:

1. *Scissors*—(of best quality and sharp) for cutting curves and short straight cuts.
2. *Shears*—(any scissors longer than 6 inches are called shears) used for long cuts necessary in dressmaking.
3. *Thimble*—well-fitting. Celluloid or aluminum is good and inexpensive. Indentations deep enough to keep needle from slipping.
4. *Tape measure*—60 inches long, numbered on both sides from opposite ends; metal ends; sateen best material.
5. *Needles*—not too coarse for material and just large enough to carry thread. Package of 5 — 10 a good assortment.

Kinds—

44
56
57
60
61

Ground down (very fine) for fine sewing

Between (short) for fine sewing.

Sharps (long) for general sewing.

Milliners (longer than sharps) for hats and quick basting.

63
64

Crewel (elongated eyes) for embroidery and darning.

Calyx-eyed (self-threading eye).

6. *Pins*—small, sharp, pointed pins best. Dressmakers pins known as silk pins; purchased in $\frac{1}{4}$ pound box are good and economical.
7. *Pincushion*—A light weight pincushion stuffed with hair or wool is convenient.
8. *Emery bag*—useful for brightening and sharpening needles.
9. *Thread*—made from cotton, linen and silk. Cotton and linen threads are numbered, the larger numbers are the finer threads. The sizes of silk thread are OOO, OO, O, A. B. C. D. E. and E.E., the latter coarsest. The size of the thread to be used is determined by the thread of the material. For cotton materials Nos. 60, 70, and 80 are used on medium weight material; Nos. 100 and 150 for very fine materials. For silk materials: size A—used for general stitching, size D—used for heavier work and buttonholes.
10. *Measuring gage*—made from light weight cardboard.

SUGGESTIONS FOR WORKING

1. Sit erect in position with hips against back of chair and feet resting on the floor.
2. Never pin work to the table or to the knee. Hold it up so that bending the shoulders and dropping the head will not be necessary.
3. Have plenty of light, coming from the back and above, over the left shoulder so no shadow will fall on the work. If left-handed the light should come over the right shoulder.
4. Never sit with the sun shining on the work.
5. Do not bite the thread or wet it in the mouth. Biting the thread may crack the enamel of the teeth, while wetting soils thread and may spread disease germs.
6. Use a short thread. It may be as long as the distance from finger tip to elbow. Basting threads may be longer.
7. To prevent cotton thread from twisting, always remember to knot the end cut from the spool and thread the opposite end.
8. A knot is used only in basting or when it can be hidden.

9. Twisting of thread may be removed by smoothing the whole length of thread between thumb and forefinger.

10. Never use bent, rusty or blunt needles. An emery bag may be used for sharpening and polishing needles.

11. Never leave a needle fastened in work. It may leave rust spots.

12. Baste all work carefully, having work flat on table or lapboard. Never pull edges; pat them into position, being very careful not to stretch the cut edges. Much poor work is due to lack of basting.

13. When removing basting, cut thread at intervals so that in pulling out the threads no injury to the garment will result.

14. Own a good pair of shears. It is a profitable investment, for good cutting is a large factor in the making of a perfect garment.

15. Have the wrong side of work neat and carefully finished. It is the wrong side of the garment that denotes the workmanship.

16. Always wear a sewing apron or spread a clean cloth over lap when sewing.

17. Wash hands just before beginning to sew and during the sewing if necessary.

18. "Fit the thimble you wear and wear the thimble you fit."

19. If hands perspire dust them lightly with cornstarch or talcum powder.

20. Have only those materials in the sewing box which are going to be used.

21. Before starting any piece of work, be sure to read thru all directions given.

USE AND CARE OF THE SEWING MACHINE

Study the instruction book which comes with the sewing machine as the operating, oiling and use of the attachments are all described in it. After learning how to properly thread the machine, practise stitching first on paper and then on cloth without threading the needle. Practise turning a corner. Stop

the machine when the needle is at its lowest point. Raise the presser foot and turn the work, using the needle as a pivot. Lower presser foot and continue stitching.

Threading: Place the ball of the left foot upon the upper left corner of the treadle and the heel of the right foot on the lower right corner. Treading in this position takes less effort than when feet are placed in any other position.

Winding the bobbin: The bobbin must be wound evenly to work properly in the machine. A bobbin should never be wound so full that it is tight in the shuttle.

To remove work from the machine: Have the needle and the "take-up lever" at the highest point; raise the presser foot and draw the material toward the back. This prevents the needle from becoming bent.

Length of stitch: Thin, soft materials require a fine needle, fine thread, a short stitch and a loose tension. Heavy materials require a coarse needle, coarse thread, a long stitch and a tighter tension. Every machine is provided with a stitch regulator. About sixteen to twenty stitches to the inch makes a desirable stitch for ordinary sewing.

Regulating the tension: The appearance of the stitch depends on the way the tension is regulated. This tension should be adjusted for thin and heavy materials.

A perfect tension should give a round appearance to the stitch on both sides. All regulating is done with the upper tension. A straight line on the right side of the stitching means that the upper tension is too light. A straight line on the wrong side means that the upper tension is too loose. Too tight a tension for thin materials may cause the stitching to break.

Cleaning: A sewing machine will not give proper satisfaction unless kept clean and well oiled. If the machine is used continuously all day it requires daily cleaning and oiling. To clean the machine take off the needle plate and remove all the lint which has collected around the feed and shuttle. If the oil has become hard and gummy put kerosene or gasoline in each oiling point and run machine until the gum is out. Wipe off with old cloths.

Oiling: The machine should be oiled wherever there is friction. It will give better satisfaction to oil lightly often, rather than oil heavily once in a while. Always stitch on a scrap of material before stitching the garment. When closing the machine leave the presser feet down with a piece of cloth under it to absorb any surplus oil.

USE OF MACHINE ATTACHMENTS

A great deal of time may be saved and many attractive finishes may be made by using the attachments which come with the sewing machine.

The binder may be used in binding edges on many kinds of garments, binding scallops, bound buttonholes and making loop trimmings.

The hemmer may be used in hemming towels, underwear, ruffles, hemming and sewing on lace, setting insertion, etc.

The tucker may be used for tucking underwear, dresses, cross-tucked bands for lingerie, etc.

The ruffler may be used for making ruffles, plaitings, puffings, etc., for trimmings.

Reference: Machine Sewing—Singer Sewing Machine Company.

TEXTILES

Cotton, linen, silk and wool are the four principal fibers used to make cloth. Rayon is now used for cloth.

COTTON

Cotton is of vegetable origin. It is the white, downy covering of the seed borne in the bolls of the plant. Cotton thread is made by twisting cotton yarns together to form a hard twisted strand. This thread is woven into cloth. The ends of cotton thread when broken are tufted and the threads burn quickly with a bright flame. Cotton is the most commonly used fiber as it enters into nine-tenths of the textile materials of every day use.

Cotton fabrics have the following characteristics:

1. Good quality materials are strong and durable.
2. Soft and pliable when no sizing is used.
3. Cotton has a fuzzy surface, therefore, it soils quickly.

4. Cotton is easily laundered and it can be boiled without injury. It takes starch well so can be kept looking fresh.

5. Acids destroy the fiber.

6. Cotton takes up dye but not as readily as wool and silk.

7. Cotton makes a cool fabric and is valuable for summer wear. When loosely woven, as in heavy knitted underwear, it is used for winter underwear.

8. Cotton is a good conductor of heat.

Mercerized cotton cloth has been treated chemically to give the fiber a silky luster. Mercerized cotton is more expensive than ordinary cotton but is stronger, and more silky looking and gives very good service. It also takes dye more readily than the untreated cotton fiber.

LINEN

Linen also is of vegetable origin, is obtained from the flax plant. It is made from the fiber which is found near the outer surface of the stem of the flax plant. It is more expensive than cotton and therefore is not so largely used. The linen fibers are long, smooth and lustrous when spun into thread. Linen thread is very straight, smooth and when broken has pointed ends. It burns more slowly than cotton and the ends stand erect and compact while those of cotton spread out in every direction. Linen has the following characteristics:

1. Strong and durable.

2. Cool, and has leathery feel.

3. Does not take dye well and fades quickly in both sun and water.

4. Wrinkles easily.

5. Absorbs moisture readily, also gives up moisture readily.

6. Is smooth and glossy when laundered.

7. Keeps clean longer than cotton.

Cotton is often woven with linen and sold as all linen. It is difficult to detect a small amount of cotton in linen except with a microscope. Ink leaves a round outline on linen and is

absorbed very quickly; on cotton it leaves an irregular outline and is absorbed less readily.

WOOL

Wool is the second most important commercial fiber and the most important of animal fibers. It is the soft, curly coat of the sheep and some other animals like the angora goat, camel and alpaca. The fibers are round, wavy and covered with small scales. The waviness gives it elasticity and this, together with the scales which cause the fibers to cling together, enable it to be spun into fine yarn. Under heat and pressure it mats together into felt. The characteristics of wool are as follows:

1. It is very elastic. When stretched it will spring back to its original shape. Wrinkles will shake out of all wool easily.
2. Difficult to launder as very hot water and sudden changes in temperature cause it to shrink. Strong soap makes it harsh.
3. Absorbs a great deal of moisture without seeming wet.
4. Dyes easily and holds color well.
5. Scorches easily.
6. Not a good conductor of heat therefore valuable as a winter fabric.
7. Wool threads burn slowly and give off an odor of burning hair or feathers.

SILK

Silk is the most expensive as well as the strongest and most beautiful of the fibers. It is an animal fiber produced by the silkworm; the tiny filaments harden in contact with the air and form a fine elastic fiber which the worms weave into a cocoon. The fiber from cultivated cocoons varies in thickness and length. When it comes off in long, smooth thread it is called reeled silk. If the fiber is short or broken, it is made into spun silk. The fiber from the uncultivated cocoons is rougher, coarser and darker in color than the cultivated.

As it is difficult to bleach and dye, it is often used in natural silks, as in pongees. Characteristics of silk are as follows:

1. Strong when pure and wears well.
2. It is injured by high and sudden changes of temperature, therefore, it should be washed in lukewarm water and pressed with a moderately warm iron.
3. Scorches easily.
4. Sheds dust and dirt quickly.
5. It is a poor conductor of heat.
6. Silk burns much like wool only more rapidly leaving a black residue.

Often silk is weighted with some metallic substance such as tin, zinc or iron. A small amount does not harm the fabric but a large amount causes silk to split.

RAYON

Rayon is made from cotton or wood fiber by a chemical process. It has a very high luster but is less pliable and elastic than silk. It burns like cotton.

CLOTH

Cloth is made of two sets of threads which interlace at right-angles. One set of threads run the whole length of the cloth and is called the warp. The warp threads are threaded into the loom and stretched so that they lie parallel to each other. Then the other set of threads cross the warp threads at right angles and interlace with them to make a flat, pliable fabric; this set of threads which fills in and holds the warp threads together is called the woof. The warp threads are as long as the piece of cloth which is woven; they are usually stronger than the woof threads for they must bear the strain of the weaving process. The woof thread is one continuous thread which goes in and out, back and forth from one edge of the cloth to the other. The edge which it forms as it turns over the last warp thread to go back is called the "selvage." The selvage is a finished edge which will not ravel; it may shrink more than the rest of the material, so it is often cut in order that the garment into which the goods is made will not pucker at the seams.

Dots, figures, checks, stripes, plaids, etc., make the design

or pattern in the cloth. They are either woven in or stamped on. A printed design is one that is stamped on the cloth after it is woven, and there is a right and wrong side to the material. Examples of printed material are percales, prints and calicos. A woven design is more permanent, as the thread is dyed before it is woven into the material in a pattern. In gingham the design is woven.

Most of our clothing is made of cotton because the cotton fiber is the cheapest and also because it can be cleaned and purified more easily than any other except linen. Linen is expensive to produce so it is being used less than in the days when each family grew the fibers, spun them into yarn and wove them into cloth. Linen feels cool to the touch, which makes it good for summer wear. Its greatest disadvantage is that it wrinkles very easily. Linen is most desirable for table cloths, napkins and towels. Any cloth should be carefully examined before it is bought to be sure it will wear well and is worth the money asked for it.

Reference: Textile Fiber and Fabrics, Circular 125, College of Agriculture, University of Kentucky.

PLAIN STITCHES.

BASTING.

Basting is used to hold two or more pieces of cloth together until they are permanently joined. Begin with a knot on the right side and sew from right to left.

EVEN BASTING.

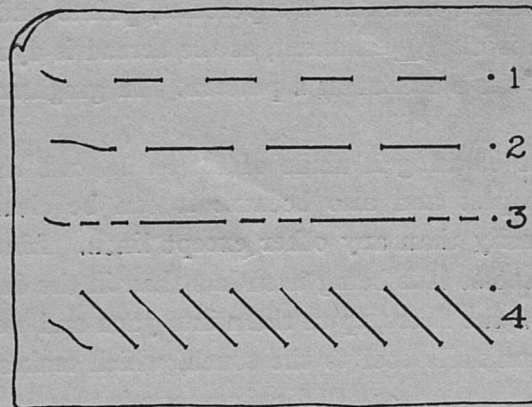
The stitches and spaces are even and are from $\frac{1}{4}$ to 1 inch in length. Used when careful basting is required.

UNEVEN BASTING.

The stitches are long with short spaces between; upper stitch 1 to 2 inches in length with under stitch $\frac{1}{4}$ to 1 inch in length. Used where there is little danger of the material slipping.

DRESSMAKERS BASTING.

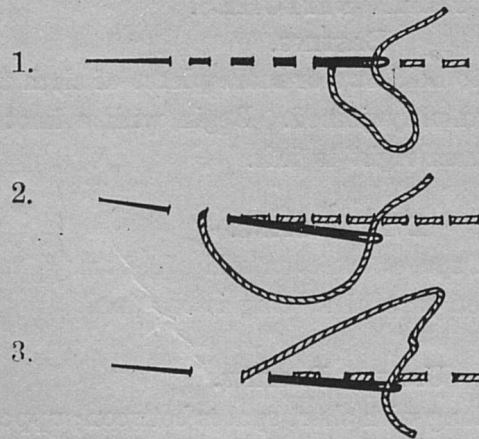
A long stitch on the upper side followed by two short stitches. This is stronger than the uneven basting.



- | | |
|-------------------|-------------------------|
| 1. Even basting | 3. Dressmaker's basting |
| 2. Uneven basting | 4. Diagonal basting |

DIAGONAL BASTING.

Uneven basting is made with the long diagonal stitches on the right side standing up from right to left and with the short vertical stitches on the wrong side. Used in tailoring for basting linings to outer garments.



- | | |
|-------------------|-----------------------|
| 1. Running stitch | 3. Combination stitch |
| 2. Back stitch | |

RUNNING STITCH.

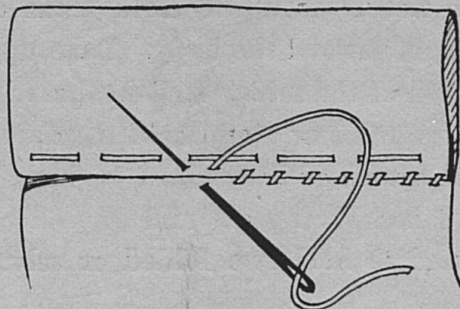
Begin at right hand side by taking two stitches in same place, or by using a knot if it can be hidden. Run the needle in and out in regular intervals as in even basting. The smaller the stitches the firmer the seam is. This stitch is used for sewing seams where there is no strain and for gathering.

BACK STITCH.

Begin work as for any permanent stitch. Take two short running stitches, put the point of the needle into hole at the beginning of the second stitch, take a stitch twice the length of the second stitch. Continue putting needle back each time to end of the last stitch. Stitches on the wrong side are twice the length of those on the right side and overlap. Fasten the end as before. Use in place of machine stitching.

COMBINATION STITCH.

Take three running stitches and one back stitch. Repeat to end of seam. Begin and end as other stitches. Used for seams that must stand some strain. It is more quickly made than the back stitch.



Plain hemming

PLAIN HEMMING.

Hold work with the hem in a vertical position; place the hem over the forefinger and hold it down with the thumb. Draw the thread through at the edge of the hem, leaving one-half inch which can be concealed under the fold of the hem. Pointing

the needle towards the left shoulder, make a slanting stitch by taking up a few threads just under the edge of the hem of the material and one or two threads at the fold of the hem. Take up as little cloth as possible with each stitch. The stitches are slanting on both the right and wrong sides. The hemming stitch is used to hold seams, hems, fells and other folded edges in place.

GARMENT HEMMING.

The hemming stitch used for garments is similar to the plain hemming but is less conspicuous. Start as for plain hemming, taking up only one thread of the material, push the needle thru the fold of the hem for about $\frac{1}{4}$ inch before bringing it out at the fold for another stitch. Leave the thread very loose between the stitches, so as to avoid a pucker where each stitch is taken. Make a finishing knot in the edge of the fold every four or five inches, so that if the hem is caught only a few inches will rip.

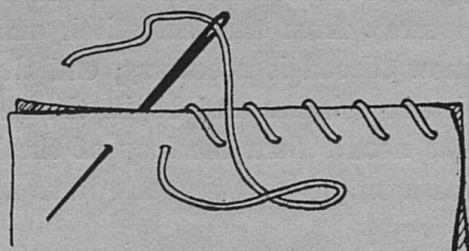
OVERHANDING.

Work from right to left. Fasten thread by leaving a half inch of thread to be enclosed in stitches. Hold work parallel to body, the working edges in a straight line between thumb and forefinger. Put the needle thru the cloth from opposite side pointing needle straight toward the body. Take up in the stitch only one thread of each of the folds. To join thread, push thread ends down between the folds of cloth, hold them within the next few stitches. To end, overhand back about $\frac{1}{4}$ inch, insert needle in fold of cloth for 1 inch, bring out and clip off close to cloth.

This stitch is used to hold two folded or selvage edges together.

OVERCASTING.

Use same method as for overhanding except make stitches $\frac{1}{8}$ inch deep on cloth and $\frac{1}{4}$ inch apart. For coarse cloth a deeper stitch may be necessary. This stitch is used to keep raw edges from raveling.



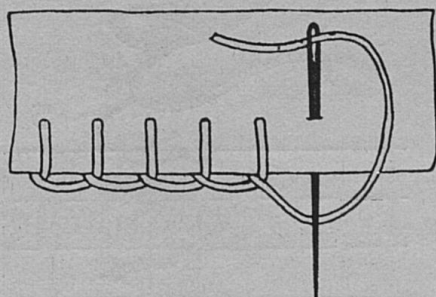
Overcasting

DECORATIVE STITCHES.

OUTLINE STITCH.

Work exactly on the line of the design, hold cloth over the left forefinger. Begin with two small running stitches down, then work back over this with outline stitch. For outline stitch work away from body keeping the thread down under the thumb and to the right of the needle. Put the needle thru the goods about $\frac{3}{16}$ of an inch beyond the point where it went thru last and bring it out where the thread came thru. Continue in this manner.

This stitch is used for outlining shapes in embroidery and for line decoration.

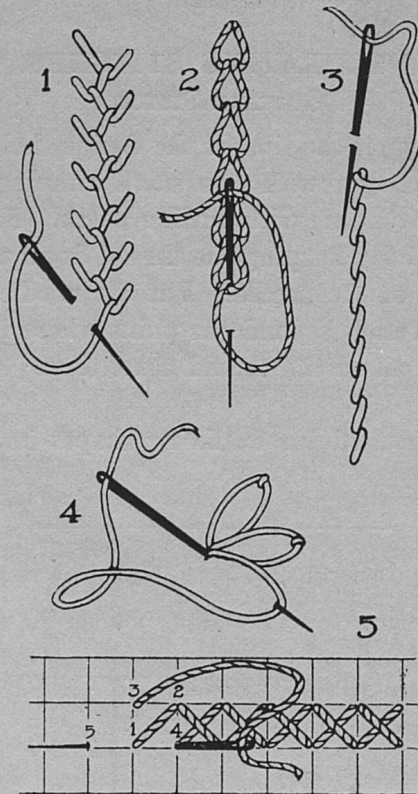


Blanket stitch

BLANKET STITCH.

Work from left to right, holding the edge of the cloth toward you. To begin the stitch, take two or three running stitches from the edge up into the cloth. Hold the thread under the thumb of the left hand and insert the needle directly above the last running stitch at right angles to the edge or line of

decoration, bring the needle thru the loop. Insert the needle the desired distance away from the last stitch and proceed as before. When a new thread is necessary, end the old one on the wrong side with two stitches and begin the new thread as before, inserting the needle thru the loop of the last stitch. The blanket stitch has a single purl and the buttonhole stitch has a double purl.



1. Feather stitch 2. Chain stitch 3. Outline stitch
4. Lazy Daisy stitch 5. Cross stitch

CHAIN STITCH.

The chain stitch is worked toward one. Bring the needle up at the end of the line, let the thread hang naturally or hold in place with the left thumb. Put the needle back where the thread comes out and bring it out a short distance in advance and

over the thread which thus is held down in the form of a loop. Each stitch is made in the same way, one end of it coming out thru the preceding stitch and the other end held down by the next stitch.

FEATHER STITCH.

The feather stitch is a variation of the blanket stitch. The feather stitches are made alternately, first on the right and then on the left. To make a feather stitch from right to left place the thread in a loop toward the left. Hold the thread under the thumb. Insert the needle letting the point pass over the thread loop. Alternate the direction of the stitches. This may be varied by making two or more stitches on each side of the line each time before working on the opposite side.

LAZY DAISY STITCH.

Here each petal is formed with just two stitches. Bring the needle up at the inner end of a petal near the center of the flower. Hold the thread under the left thumb, put the needle in exactly beside the hole it just came thru and bring it out at the tip of the petal over the thread, thus making one chain stitch. Put the needle in again at the tip of petal, outside the chain stitch, making a stitch over the thread, thus holding the chain stitch in place.

CROSS STITCH.

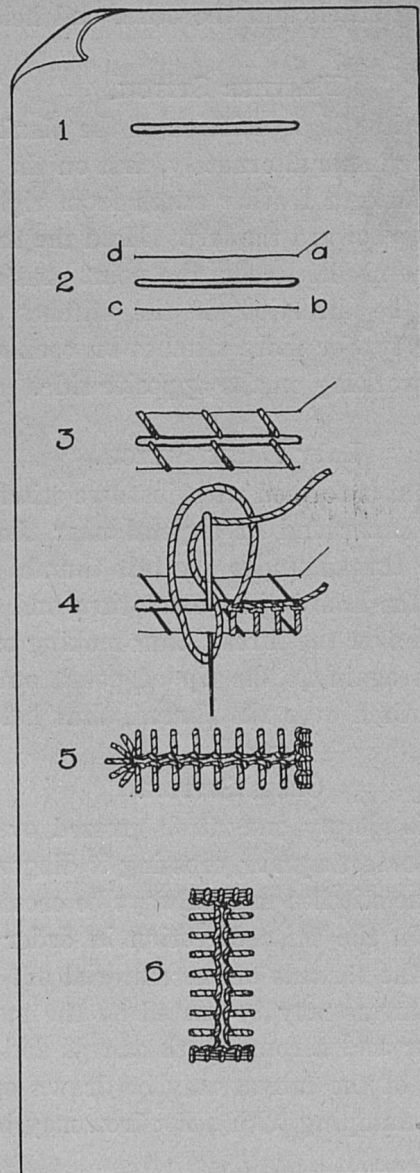
Cross stitch is simply one stitch crossed over another, the two occupying a perfect square, crossing it diagonally from corner to corner. The stitches must always be crossed in the same way and worked in the same direction in order to present an even surface. If the threads of the material are difficult to follow, cross stitch canvas may be basted on the material and the design worked over and through both canvas and material after which the threads of the canvas may be drawn out. Also cross stitch designs for stamping with a hot iron may be used.

FASTENINGS.

BUTTONS AND BUTTONHOLES.

Buttons and buttonholes are a decoration as well as a fasten-

ing. They should be well made and their size should be in good relation to the space on which they are used. Small buttons are



1. Buttonhole cut
2. Stranding
3. Overcasting
4. Buttonholing
5. Completed buttonhole
6. Square-end buttonhole

attractive when grouped while large buttons are better placed separately.

Consider the following points when making buttonholes: (1) size, (2) marking, (3) cutting, (4) stranding or outlining, (5) overcasting, (6) buttonholing, (7) end bar.

1. The size of the buttonhole is determined by the size and thickness of the button. The size is usually cut about $\frac{1}{16}$ of an inch longer than the diameter of the button.

2. Mark position of the buttonhole on the garment with a pin or basting after determining the spacing between the buttonholes and the distance from each edge of hem or band.

3. Cut along a wrap or woof thread as it is much harder to work on a bias.

4. Stretch the slit across the finger perpendicular to the length of the finger. Always keep the slit in this position throughout the process. Insert the needle above the end of the cut which is farthest from the edge of the garment (position a) leaving the end of the thread out about $\frac{1}{2}$ inch. Bring the needle out at b, and make a second stitch from a to b. The width of this stitch determines the finished width of the buttonhole. In closely woven material, this stitch should be 3, 4, or 5 threads deep on either side of the cut. Turn the work around, place the needle the same distance below the end of the cut at c, and bring it out at d. Turn work to original position, insert needle at a, and return it at b, thus bringing the needle in position for overcasting.

5. Overcast edges to hold together and to prevent raveling (buttonholes always made thru two thicknesses of material.) Make about three overcasting stitches on each side of the buttonhole, bringing them just inside of the stranding thread. From the last overcasting stitch bring the needle out at b in position for buttonholing.

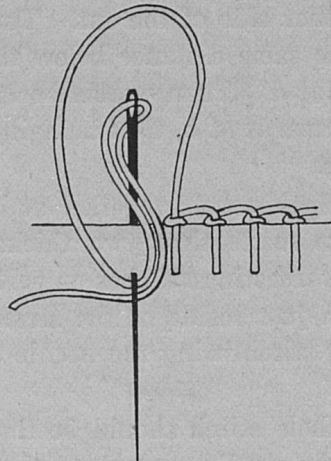
6. The buttonhole stitch should be the same depth as the stranding. Insert the needle thru the end of the cut at b. Before pulling the needle thru the cloth, catch in the right hand the two threads at the eye of the needle and throw them under the point of the needle from right to left. Draw the needle on

thru so that the knot will be on the edge of the hole. This edge made by the knots is the purl of the buttonhole. Continue across the side, being careful to keep stitches at an even distance apart and always the same depth. At this end make a fan of five or seven stitches, all the stitches starting from end of cut but spreading outward as the sticks of a fan. Continue buttonhole stitches along the other side, back to the first end.

7. The first end of the buttonhole is finished with a bar. To make the bar, first take the needle to position a, from the last buttonhole stitch. Make a stitch from a to b, ending with thread at a. This stitch together with two stitches taken on stranding form the foundation for the bar. Make five blanket stitches over these threads working the end of the thread which was left out in stranding. Hold the work so that the purl will be turned toward the buttonhole, and take the middle blanket stitch thru the material. Carry thread thru to the wrong side and end it with a finishing stitch.

SQUARE-END BUTTONHOLE.

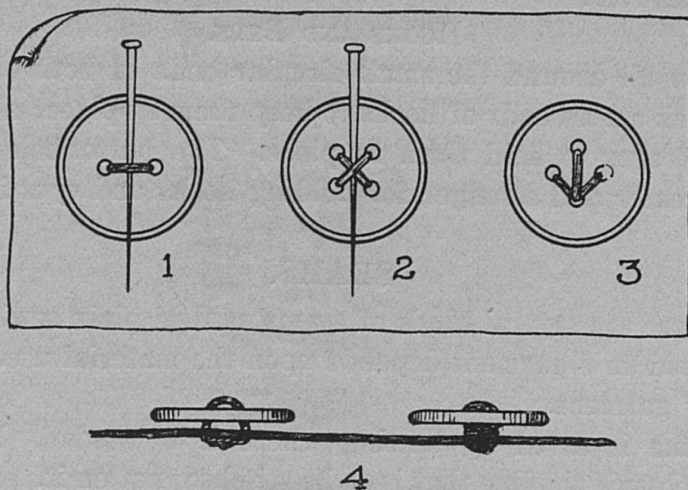
These buttonholes are finished with a bar at each end and are usually made in a vertical position. The outlining is the



Button hole stitch

same as for fan-end buttonhole except that a second stitch is made from c to d, thus completing the four sides of the rec-

tangle. Overcast the same. Make buttonhole on one side to the end, then make bar. Continue buttonhole on other side and complete buttonhole with a bar.



1. Two-eye button showing stitches taken over pin
2. Four-eye button showing stitches taken over pin
3. Crowsfoot method for decoration
4. Side view showing shank

BUTTONS.

To sew on buttons mark the places for the buttons with pins. In sewing buttons with eyes the thread should be run straight with either wrap or woof, usually parallel with the buttonhole. Use a heavy single thread. Make a knot in the end of thread, and take a stitch on right side marked by pin. Bring needle thru to right side of button and back again thru button to wrong side of material. Run a pin under first stitch on right side of button and make all other stitches over this. When enough stitches have been taken to hold button securely, bring needle out under the button, remove pin and wind thread around the loose stitches forming a shank. Fasten thread on the wrong side with a finishing knot. This method prevents sewing button on so tight that buttonhole will pucker.

SNAPS.

Sometimes it is necessary to have an invisible fastening and

snaps of varying sizes may be secured for this. Use buttonhole twist or strong thread for sewing on snaps. Use a buttonhole stitch for sewing them on as it holds much better than sewing over and over.

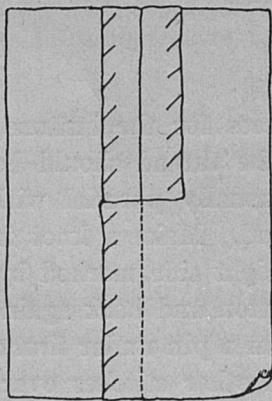
HOOKS AND EYES.

Sew all around the small circular ends of both hooks and eyes, tack across ends of hooks to keep them in place; also across sides of eyes to hold them in place. The buttonhole stitch is much neater and stronger for holding hooks and eyes in place.

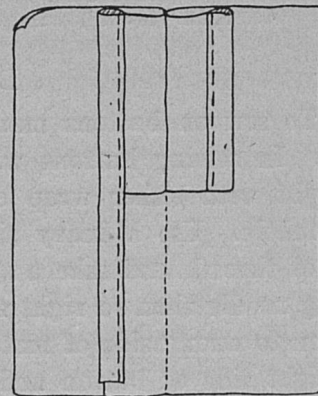
SEAMS.

There are several kinds of seams used in plain sewing. The seam used on a garment depends upon the material used and the kind of garment.

Time is saved by basting where it is needed. Place the basting beside the line that is to be stitched, not on it. All seams should be carefully pressed before finishing.



Plain Seam
Overcast Edges

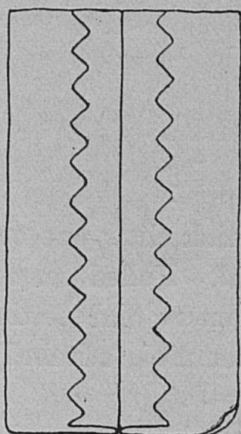


Plain Seam
Bound Edges

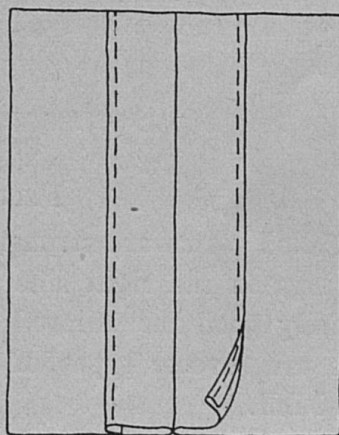
PLAIN SEAM.

Usually a plain seam is used on outergarments when some finish will be used to prevent the cut edge from raveling or where no finishing of the cut edge will be necessary. To make, lay the right sides of the material together, pin at right angles to the seam and baste. Stitch one-half inch from the edge near

the basting. Clip and remove the bastings. Press seam open flat or both to one side. The edges may be finished in any of the following ways: 1. Overcasting the edges singly or together. 2. Binding the edges with silk or cotton seam binding which is generally put on by hand. 3. Pinking so the edges of the material will not ravel. Good for heavy materials. 4. Folding the edge of the seam over and stitching close to the fold. The edge should be folded so that when the seam is pressed open the raw edge will be next to the garment. 5. Folding the two edges of the seam toward each other and overhanding the folded edges. This seam is used only in thin materials and is some times called a false French seam. 6. Stitching the two edges together and then trimming close to this row of stitching. Used on closely woven cotton materials as percales or chambrays.



Plain Seam
Pinked Edges

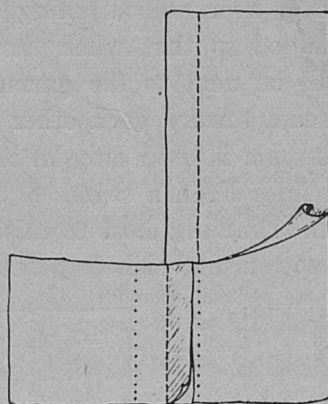


Plain Seam
Stitched Edges

FRENCH SEAMS.

French seams are small, neat and strong. No stitching shows from the right side of the garment. It may be designated as a seam within a seam. It is practical for thin and medium weight materials, such as used in nightgowns, petticoats and lingerie. In stitching seams under the arm in a one-piece garment, stretch the material as much as possible. To make, place the two wrong sides of the material together, pin and baste. Stitch, trim to within $\frac{1}{8}$ inch or less. Turn material and crease

exactly on the line of stitching with the raw edges to the inside and baste $\frac{1}{8}$ inch from the edge. Stitch close to the basting. Remove the basting and press the seam. A good French seam should be even thruout, never more than $\frac{1}{4}$ inch wide when finished and should show no ravelings along the outside of the seam.



French seam

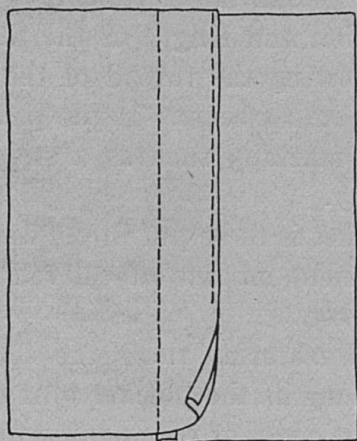
FELLED SEAMS.

Felled seams are strong, flat seams which show one or two stitchings on the right side of the material. Felled seams are especially good for tailored garments, bloomers and petticoats. There are several types of fell seams; hemmed, stitched and flannel fell.

Hemmed fell—Place two right sides of cloth together with the two edges even. Baste and stitch so that the upper side of the stitch comes to the right side of the seam. Trim the under side of the seam to $\frac{1}{8}$ inch, then turn the wide edge over the narrow one, lay both flat on the cloth. Hem by hand edge of fold to the cloth. This seam is desirable where no machine stitching is desired on right side of garment.

Stitched fell—This is the same as the hemmed fell except that both seam and fold are stitched by machine. Finish stitched fells on right side, therefore baste with wrong sides together. This seam makes an attractive finish on tailored garments and is strong for undergarments.

Flannel fell—Place two right sides together, stitch seam $\frac{3}{8}$ inch from edge. Trim under side and baste fell, not turning edge. Catch stitch edge.



Stitched fell

PICOTED SEAMS.

Place right sides of material together baste and machine hemstitch along basting. Trim through center of hemstitching. This leaves a picoted seam. This seam is very desirable for fine, closely woven materials like organdy.

PLACKETETS.

HEMMED PLACKET.

Hemmed plackets are used in garments in which there is fullness such as clothes for children. These plackets are easily made as they do not necessitate the attaching of an extra piece of material.

If the opening is not a continuation of a seam, cut a slit the desired length. On the left side of the cut make a narrow hem measuring $\frac{1}{8}$ to $\frac{1}{4}$ inch at the top of the placket and running to nothing at the bottom of placket. On the right side make a wider hem $\frac{1}{4}$ to $\frac{1}{2}$ inch and uniform throughout its length. Crease the wide hem crosswise at the bottom of the placket to make a guide for the stitching. Fold the right side over the left side the width of the wider hem thus forming a plait at the bottom of the placket. Baste the bottom of the

placket in this position and stitch on the crosswise crease. Draw the ends of the stitching threads to the wrong side and tie them.

SELVAGE PLACKET.

Mark the position and length of the placket with a line of colored basting following the thread of the material unless the placket is to be put into a seam. If the pattern of the material furnishes a line of marking such as a stripe or check, basting will not be necessary.

Unless the placket is to be put into a seam, cut along lengthwise thread of garment on line of colored basting, the desired length for the placket.

Cut a strip of material along the selvage edge one inch wide and twice as long as the placket plus one inch.

Fold the two cut edges of the opening together as for a seam, the two right sides facing each other. Starting at the bottom of the opening, crease lengthwise toward the bottom of the garment, an inch or two, in order to keep the material flat.

Put a pin exactly at the cut end of the opening through both thicknesses and at right angles to the fold. Keeping the garment flat on the table, fold the upper half of the opening back so that it lies parallel and directly in line with the folded edge. This will give a continuous line.

Fold the selvage strip in half crosswise. With the center of the selvage strip as the hinge of the placket, lay it on the garment so that its raw edge is one-eighth of an inch back from the placket opening. Begin pinning at the hinge and continue in both directions. Place the pins at right angles to the cut edge and about two inches apart. Using small stitches so that the selvage strip will not slide out of place, baste the facing to the garment an eighth of an inch from the cut edge of the strip. This basting will be one-fourth of an inch from the edge of the garment.

Stitch on the line of basting as far as the hinge of the placket, then turn the wheel of the machine carefully and make just one stitch past the hinge. To fasten the thread and make the placket stronger at this point, turn work around and stitch

back on first line of sewing one half inch. Stitch the other half of the opening in the same manner, being sure to overlap one stitch at the hinge end. This overlapping will avoid an open space at the bottom of the placket.

Turn the garment right side out and draw the placket inside. Holding the work with the hinged end of the placket toward you, turn the right hand side of the placket back to form a facing. Baste in place.

The left hand side of the placket forms the extension. In order to produce a neat finish on the wrong side, turn the edge of the garment under one eighth of an inch and hem it to the placket. Snaps, hooks and eyes, or buttons and buttonholes may be used for fastenings on such a placket.

CONTINUOUS PLACKETS

Continuous plackets are usually used for openings in fine material. No stitching shows on the right side of the garment when this placket is used. The binding is usually cut lengthwise of the material. Cut the binding a little longer than twice the length of the placket, and twice the desired width for the finished placket plus two seam allowances. The width of this type of placket on underwear is usually from $\frac{5}{8}$ to $\frac{3}{4}$ inch. The binding is placed on the right or wrong side of the garment, depending upon whether the sewed stitching is to be made by hand or machine. If it is to be hemmed by hand place the right side of the binding on the right side of the garment with edges of the cut and the binding even. Baste a narrow seam. Stitch all around the placket decreasing the width of seam at the bottom of placket, being careful not to pucker garment at this point. Crease the seam flat on to the binding and crease the seam crosswise at the bottom of the placket. Fold over the outer edge of the binding and pin the folded edge directly on the first stitching, matching carefully the crease at the bottom. Baste and hem by hand, when a band is placed on the garment, the left or underside of the placket is usually extended into the opening and the right or upper side of the placket is folded back under the garment. Catch across the bottom of the placket.

Another method is used where the material is thick and is a combination of binding and facing. Cut away to $\frac{1}{8}$ inch from center of the under portion of the front of the placket. Baste it down and finish as a facing. Finish the other half as a binding which forms an underlap. Stitch across the bottom.

SPECIAL PLACKETS

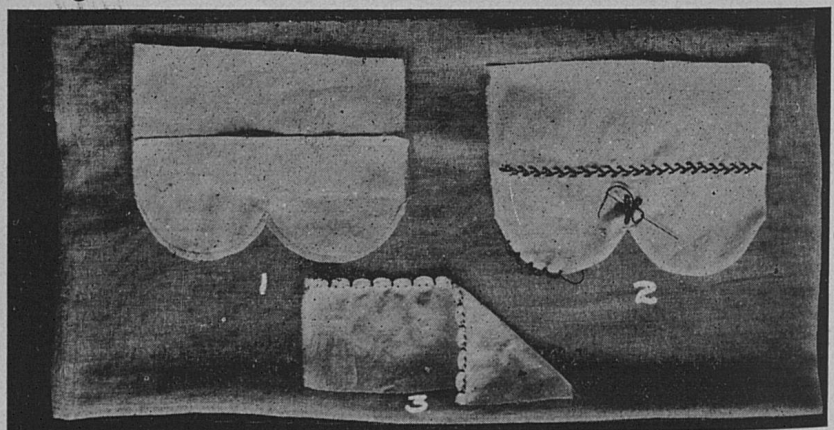
In thin dresses as georgette the narrow selvages may be snapped together or a line of machine hemstitching may be placed where the placket opening is to be and the hemstitching cut, leaving picoted edges.

HEMS

A hem is a finish made of the cloth of the article itself or of an additional piece of cloth for the edge of garments, or parts of garments. The width of the hem varies with the kind of material, the size, type and design of the garment in which it is to be used.

PLAIN HEM

The edge to be hemmed must be trimmed evenly, then fold toward the wrong side $\frac{1}{8}$ to $\frac{1}{4}$ inch, depending on the width of the hem; crease the fold firmly and fold again the required depth; use cardboard marker to measure the depth of the hem.



1. Facing on shaped hem. 2. Finish of shaped hem. 3. Scalloped hem.

The sort of garment and material will determine the kind of finish for the top of the hem.

SHAPED HEM

The upper edge of a hem may be cut in scallops, points, rectangles or in any other shape. In undergarments, these shaped edges are usually finished with a simple decorative stitch. In outer garments bindings, pipings, cordings and stitching are frequently used as a finish for the edge. Shaped hems may be turned to the right or wrong side. The lower edge of a hem may also be shaped in scallops or points. In this case the facing is basted in place and the stitching carried around the scallops, the edges trimmed and turned as in the plain facing.

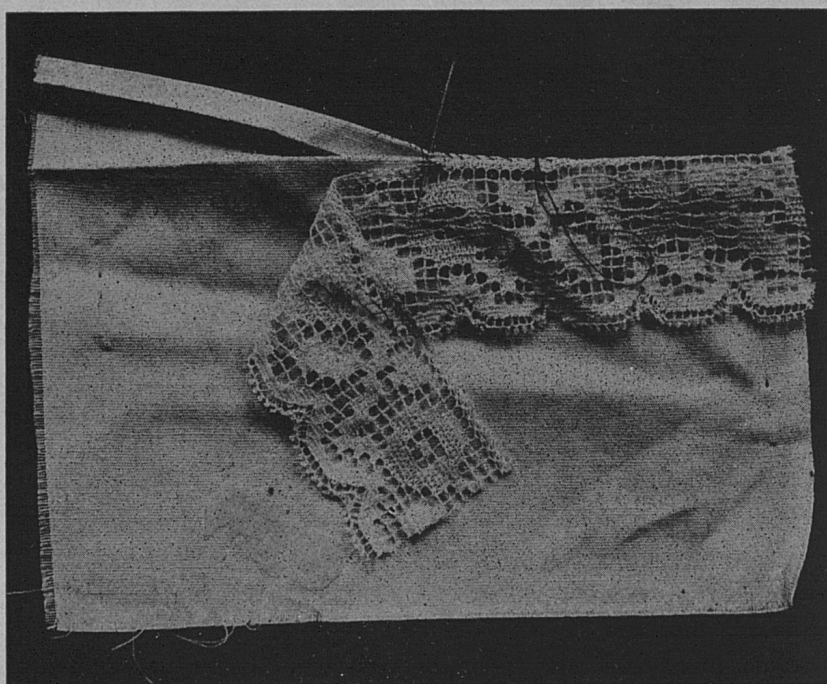
FACED HEM (OR FALSE HEM)

This device is used when garments have been outgrown in length or when there is a short quantity of cloth in the first making and sometimes by way of decoration on the right side of a garment. The strips for this facing should be cut the correct depth and the same grain of the material as the garment itself; then joined except the final seam. If for a simple facing, the right side of the facing should then be placed to the right side of the garment, basted to within one inch each side of the point for the final join; make the join and baste the remaining sections, stitch, then turn the facing to wrong side of garment and crease the seam so that a thread or two of the garment comes below the edge of this hem in the same manner as a seam hem.

FRENCH HEM

A French hem is a narrow edge finish resembling a French seam on the wrong side of the material, and showing no stitch on the right side. This finish is especially good for neck and armholes of undergarments where lace is to be used as a finish. To make, fold a narrow hem on the right side of the garment. Turn the entire hem back to the wrong side creasing the garment even with the first fold of the hem. Baste the hem in this position and overhand the folded edges together. Place right side

of lace to the right side of the garment holding the lace next to the body; overhand working from right to left. A line of featherstitching or outline stitching may be placed just below the lace of the right hand side; this will help hold the hem in exact position.



French hem made and lace attached with one operation

ROLLED HEM

Rolled hems are used on collars, handkerchiefs and ruffles. To make, start at the right end of the cloth and roll the edge between the thumb and first finger of the left hand making the roll small and tight. Roll the material for about one inch in advance of the needle. Whip, roll in place, stitches $\frac{1}{16}$ inch to $\frac{1}{8}$ inch apart. Stitches pass under the roll not through. Use short threads. Sometimes the whipping is done with colored thread and makes an attractive finish.

SCALLOPED HEM

Turn a hem $\frac{1}{8}$ inch wide on the wrong side. Crease and baste. Insert the knot on the under side of the hem; work from right to left. Take two whipping stitches in hem, then take a buttonhole stitch over entire hem. Pull this stitch tight, crumpling material. Repeat whipping, then buttonhole stitch, until entire hem is finished. This makes a tiny scalloped hem which is attractive on fine underwear, baby dresses, etc. See illustration page 28.

BIASES

Bias pieces may be stretched easily and so are especially good for finishing circular edges, for bindings, facings, pipings and decorations. A true bias is cut by folding the piece of material so that the warp threads lie parallel to the woof threads and then cutting along this crease. Bias strips are cut along this bias edge, using some measure to secure uniform width. A gage of heavy paper the width of the desired strips may be used for marking the strip before cutting. There is also a bias cutting gage which comes with the sewing machine attachments. Cut with long slashes to keep edges even.

To join bias strips: The end of bias strip should run exactly true with either the warp or the woof threads according to the slant. Lay the two diagonal ends of the strips right sides together. Adjust so that the edges of the strips come exactly together at each end of the seam. Baste and stitch.

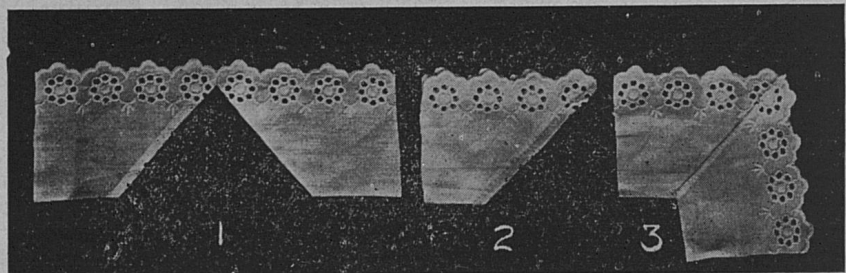
BIAS FACINGS

Cut a bias facing of sufficient length, place in on the right side of garment. Baste a $\frac{1}{4}$ inch seam keeping the edges together and holding the bias piece even with the garment on straight edges, a little full on inner curves and stretched on outer curves. Stitch close to basting thread. Remove bastings and crease the seam toward the garment. Turn the facing to the other side, creasing exactly on the stitching and baste close to the folded edge. Turn in the outer edge enough to make the facing the same width throughout its length. Baste close to

this fold and fasten edge with a decorative stitch. If lace is to be used as a finish, it is not necessary to stitch the facing the first time as this will be caught when whipping the lace on.

BINDINGS

A binding is a piece of material attached to an edge in such a way that when finished it shows from both sides of the article. Bindings may be either bias or straight and are used for edge finishes and decorative purposes. If the second stitching of a binding is to be made by hand, the binding should be placed on the right side of the material and turned to the wrong side of the finishing. If the second stitching is to be done by machine, the binding should be placed on the wrong side of the material and turned to the right side for finishing. A binding is cut twice the finished width plus two seam allowances.



Mitering embroidery

MITERING

In sewing lace or embroidery edging around a corner, it is necessary to cut out some of the surplus material in order to make a neat finish. This process is called mitering. To miter lace or other edging, make a fold of the surplus edging running diagonally from the inner corner to the outer corner of the edging. Crease and make a plain seam along this diagonal crease. Cut off the extra material to within one-eighth to one-fourth inch of seam. These edges may be overcasted or a narrow hemmed fell seam may be made.

GATHERING

In gathering parts of a garment, two rows of gathering stitches are preferable to one. This will eliminate the stroking of the gathers. First mark the piece to be gathered into halves, quarters and eighths with a few running stitches at right angles to the edge to be gathered, and also mark the corresponding divisions on the material or band. This will insure the proper distribution of gathers.

In gathering, begin with a knot and make the first row of running stitches about $\frac{1}{4}$ inch from the edge. Have the gathering thread several inches longer than the material to be gathered and make a knot in end of thread. Make the second line of running stitches $\frac{1}{4}$ inch below the first and directly underneath first line of gathering stitches.

To set gathering on to a band. After marking the gathered part and the band to correspond, place the band on the right or wrong side of the garment (depending upon whether one or both stitchings are to be made by machine) and pin in place. If the last stitching is to be made by hand, place the band on the right side of the garment; if by machine, place the band on the wrong side of the garment. Place the center of each side of the placket at the end marks of the band and match the half and quarter marks of skirt and band. About one inch of band either end is to be turned in to make a firm place for the fastening. Space gathers evenly, pin well, then baste. Stitch $\frac{1}{4}$ inch seam. Turn the seam up on the band, turn in ends and fold over the other edge of the band. Bring the folded edge of the band over the first stitching and hem the fold down by hand or machine. Overhand or stitch the ends of the band together.

REQUIREMENTS OF A WELL-DRESSED GIRL

The foundation for good dressing is a healthy, well cared for body. No matter how beautiful or becoming a girl's dress may be she does not look her best unless she is personally clean. She lacks poise and self confidence when she feels that she does not look her best. By personal cleanliness is meant cleanliness both internally and externally. The body should be kept in a

healthy condition by daily baths (internally and externally) by plenty of fresh air, exercise, proper food, sleep and rest, regular habits and good posture. Therefore, the first requirement of a well-dressed girl is a clean body.

The second requirement of a well-dressed girl is proper undergarments. They should be clean, simple, comfortable and suitable for the dresses with which they are to be worn.

Shoes should be comfortable, properly fitted, in good condition, and suitable for the occasion.

The outside garments should be comfortable, becoming and appropriate to the wearer and the occasion.

PLANNING THE WARDROBE

Before buying new clothing, it is wise to consider all old clothing on hand. Old clothing should be examined as to its possibilities for usefulness. It may be possible with a few changes to make old clothing wearable or they may be remodeled satisfactorily into other garments. Then after studying clothing on hand decide on the new things necessary to complete the wardrobe. It is more economical to decide just what is to be bought before going to the store rather than buying in a haphazard manner. In buying consider each garment in relation to other garments in the wardrobe. This is particularly important when many garments in the wardrobe are old. Planning ahead before buying makes a well-balanced wardrobe. A well-balanced wardrobe has sufficient changes to keep all garments in good condition and complete outfits for the occasions required by the wearer. A wardrobe may be very inexpensive, but if well planned the person can always be properly dressed.

SELECTION OF CLOTHING.

Our clothing should be selected for both utility and beauty. Ruskin defines "right dress" thus:

"Right dress is therefore that which is fit for the station in life and the work to be done in it; and which is otherwise graceful, becoming, lasting, healthful, and easy; on occasions spendid; always as beautiful as possible."

In choosing wisely either garments to be made or those ready made these four things should be considered:

- I Material
- II Color
- III Design or pattern
- IV Construction or workmanship

SELECTION OF MATERIAL.

Before buying material for a garment, have it all planned, so that the money will be spent wisely and the garment will fill the needs of the wardrobe. This means that the following points will be considered when buying material:

1. The garment or article for which the material is to be used. Is the material to be used for a dress, a nightgown, or bloomers? Materials that are suitable for one purpose will not as a rule give as great satisfaction if used for another.

2. Occasion on which the garment is to be worn. Even if the material is for a dress, the kind of dress (house dress, school dress, or party dress) will make a difference in the kind of material chosen. For every-day wear a fabric must be durable, easily renovated and relatively inexpensive.

3. The pattern or how the garment is made. Materials that will make up prettily in one design are often very unattractive when made up in another. For example, percale or gingham is satisfactory for a kimone dress, but voile would not look well made that way unless bloused at the waistline.

4. Person for whom it is intended. Is the garment for a child, young girl or adult? Then, the size, the proportion of figure, the coloring of the person and her personality will influence the choice of material. Light colors and bright colors make the figure appear larger. Vertical stripes, if not too broad, and broad floral stripes makes thin figures appear taller and more slender. A large figured pattern dwarfs small people and a small pattern makes big people seem bigger. Dots in strong contrast to the background make the body seem larger. Pronounced stripes, plaids and all-over patterns call attention to the body and make it look larger. Stripes going round make

the figure appear shorter and bulkier. The texture or weave of the material may cause the wearer to appear smaller or larger. Stiff, thin organdy, shiny satin, heavy velvet, and long shaggy furs will make the figure appear larger and therefore as a rule should not be used by the very stout person. Soft materials like voile and crepe, and smooth lusterless fabrics and crisp linens are very satisfactory for the large person. Select a material which harmonizes in color with the complexion and the coloring of the hair and eyes of wearer. Everyone has some color that is especially becoming, so it pays to try on colors and choose those which are most becoming. Dull or grayed colors are most generally becoming.

5. Money that can be spent for the material. Buy standard materials and the best available for the money. It is better to buy the best grade of an inexpensive material (as percale) rather than the cheapest grade of a more expensive material (as linen.) It pays to buy a few garments of good quality rather than many garments of a cheap overtrimmed type.

6. Laundering qualities. Will it wash well and does it require much care in washing and ironing. If a person has limited amount of time to spend, it might pay to buy cotton crepes and such materials that require little ironing and no starch.

7. Material available. After deciding upon what particular material is suitable for the garment, then decide on the color, pattern or design of the material, the width and quality of the goods. Width—Notice to see that the material is wide enough to cut the garment. It is usually more economical not to piece, particularly an outer garment. The narrower materials may cost less, but will require enough extra in length to make the cost equal to the wider more expensive cloth. Wider gingham cuts to better advantage, and the texture is usually softer and finer. Quality—The quality of the material depends upon the number and kind of threads used in the weaving of the cloth, and upon the manufacturing process. Sometimes if too few threads are used in the cloth, a starch or dressing is used to cover up this defect. This poor quality of material looks very sleazy

and thin after washing. This sizing can usually be detected by rubbing between the hands.

Reference: Principles of Dress Selection, Butterick. Textile Fibers and Fabrics, Circular No. 185, College of Agriculture, University of Kentucky.

COLOR.

Everything that surrounds us has color. Often it is the color which makes an object attractive or displeasing. This is especially true of clothing. Therefore, in order to be well dressed a person needs to analyze her own coloring and the color of materials; Choose and combine materials which harmonize and that are appropriate and becoming to her type.

The five principal colors (Munshell Chart)—red, yellow, green, blue and purple are the principal colors. From these five all other colors may be derived, altho their values may be varied by the addition of black or white.

The intermediate colors—Between the principal colors are intermediate colors, which are composed of equal parts of any two adjacent principal colors. They are red-yellow (orange); yellow-green; green-blue; blue-purple, and red-purple. These are the half way steps between the principal colors. Unequal proportions of any two colors produce an endless number of other variations.

The color chart—For help in study of colors and color harmonies the principal and intermediate colors have been arranged in a circle.

The three qualities of color—There are three things that can be known about a color—

1. *Hue*: The name of the color, whether it is yellow, green, blue etc.

2. *Value*: The amount of light or dark present. Example, whether light blue, dark blue, etc.

3. *Chroma or intensity*: The amount of pure color present. Is the color bright pure color, or is it dulled or grayed by the addition of some other color.

Properties of Color—Color seems to possess temperature, force and weight.

Warm colors are those which have a predominance of red and yellow, as yellow, orange, red, red-purple, and yellow-green.

Cold colors are those having a predominance of blue. They are blue, blue-green, green, blue-purple and purple.

Red, orange and yellow are cheerful and suggest action. Green, blue, purple, blue-green, and blue-purple are restful and receding.

COLOR HARMONIES

When colors are combined pleasingly the combination is spoken of as a color harmony. The four general types of color harmonies are:

1. *Self-tone harmony.*

Variations of the same color or hue are combined as light and dark or bright and dull. Example: Light and dark green with a little light, bright green. An auburn-haired girl wearing tans and browns forms a one-color scheme.

2. *Neighboring or Analogous Color Harmony.*

This combination is made up of two or more colors which have one hue in common, as yellow-green, green and blue-green, green being the common ingredient. Colors that lie next to each other in the color wheel are pleasing because of their mutual relationship.

3. *Opposite of Complementary Color Harmony.*

Colors that are directly opposite on the color wheel when used together produce a very striking color harmony known as complementary harmony. When opposite colors are placed side by side they intensify each other. Therefore much care must be used in combining the correct values and intensities of the colors and using the right amount of each color. The pairs of complementary colors are:

Yellow and blue-purple

Green and red-purple

Blue and red-yellow

Purple and yellow-green

When using this harmony in dress, the affect is more apt to be pleasing if the main part of the dress is of a dulled color and a small amount of the opposite color is bright and of different value. For example, if the complements purple and

yellow-green were to be used in a summer dress, the following dress would be attractive:

Dress of light grayed-green organdy.

Trimming of double-faced ribbon of a darker green lined with medium purple.

Reference: Color and Its Application to Dress, Circular No. 184, College of Agriculture, University of Kentucky.

SELECTION OF THE PATTERN

Choose a pattern which is suitable for the material and is appropriate and becoming to the person. The lines of the pattern should be becoming to the individual. By the lines, we mean, the structural lines of the garment which make up the outline of the garment, and the other lines formed by belts, pockets, collars, cuffs, tucks, plaits, and seam lines. Vertical tucks, stitching, panels and other up and down lines make the figure appear taller and more slender. Ruffles crosswise tucks, and horizontal lines usually make the figure appear broader and shorter. Broad collars, wide belts, large cuffs and patch pockets tend to increase the apparent bulk of a person. Narrow collars, V-shaped necklines, narrow belts, unbelted waistlines, and long lines of buttons down the front tend to make the figure seem more slender.

A good design in a costume is simple, expresses one main idea, has good proportion, and has good decoration.

Simplicity—This does not mean that a garment is necessarily plain, but is simple in design and decoration. A garment that is simple in design has to be better made, and of better material than an elaborate over-trimmed garment.

Unity—A garment that has harmony as to line, space and colors used, that is it looks as if it all belongs together, has unity. There should be one outstanding center of interest. If the collar is the main idea, there should not be an elaborate belt, cuffs and embroidery on the waist that look as if they were trying to occupy first place also. Because the face is usually the most attractive part of the body, it should be kept the center of interest in the design. Therefore, the collar or neckline of a costume is usually a safe point to be emphasized.

Proportion—Proportion is the pleasing relationship of all parts of the dress to the whole and to each other. That is, there is a pleasing proportion of the skirt to the waist, and of collar to cuffs, hem to length of skirt, of tucks to each other and to space between, etc. Divisions are more interesting if there is some variety. The length of the waist of a dress should not measure the same as the length of the skirt. If a skirt is trimmed with tucks, the design is more interesting if there is some variety in the size of the tucks or in the spaces between them, but if every tuck and every space is a different size, the design is not good.

Decoration—The decoration on a garment should look as if it were put on for a purpose. If it is a buttonhole, it should button or if a pocket it should be made to hold something. Sometimes we see trimming that seems to be just stuck on (example embroidery in the center front of a waist) for no purpose whatever, and neither adds to beauty of the garment nor to its usefulness. It should add beauty to the costume, and should be placed on structural lines, as neckline, cuffs, waistline, seams or on openings.

ALTERATION OF PATTERNS

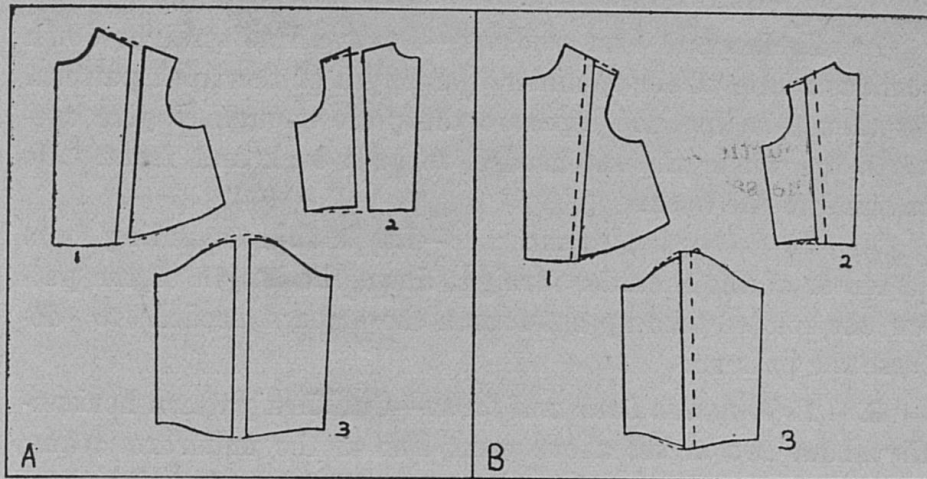
In choosing a pattern be sure that the lines are becoming, so that as few changes as possible will need to be made. Select a pattern according to measurement rather than age. Commercial patterns are made for certain standard figures so it is often necessary to alter them before cutting a garment. In order to know whether a pattern needs alteration or not, the individual measurements should be taken and the pattern measured to see how the two correspond.

ALLOWANCES

In order to allow for ease of fit, add the following to the measurements and use for testing the pattern :

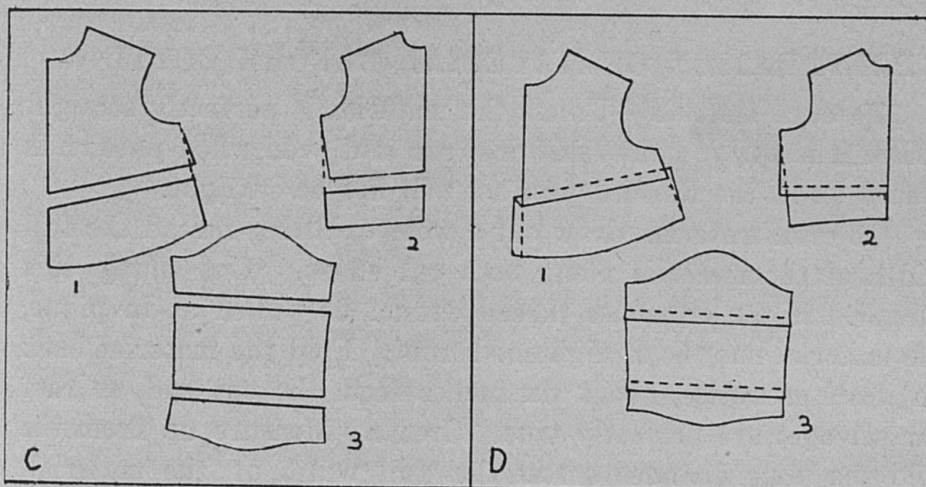
- Bust measure plus at least 6 inches
- Width of back plus at least $\frac{1}{2}$ inch
- Width of front plus at least 1 inch
- Upper arm plus at least 3 inches
- Lower arm plus at least 2 inches

These are minimum allowances, more may be added if desired.



1 and 2 - Increasing bust measure
3 -- Increasing width of sleeve

1 and 2 - Decreasing bust measure
3 -- Decreasing width of sleeve



1, 2 and 3. Increasing length of front, back and sleeve

1, 2 and 3. - Decreasing length of front, back and sleeve.

MEASURING THE PATTERN

After making these allowances, pin the underarm seams of the pattern together and measure inside the seam markings. Make all measurements on the pattern at the points corresponding to the places where the body measurements were taken.

In making any alterations in patterns make all cuts or folds, then pin on a piece of plain paper and cut a new pattern.

GENERAL DIRECTIONS FOR ALTERATIONS

1. *To increase bust measure*—Draw a line straight down from the center of the shoulder, the length of the front pattern. Cut thru this line and separate the piece enough to give one-fourth the whole amount needed on both back and front. Do the same to the back.

2. *To decrease bust measure*—Lay a fold extending from the center of the shoulder straight down the length of the pattern, the fold to take up one-fourth the amount needed to decrease the pattern.

3. *To lengthen back and front*—Cut thru pattern horizontally about two inches above waist line at the underarm seam; separate the pieces enough to give the added length, being careful to keep the proper slant in the underarm seam.

PREPARATION OF MATERIAL BEFORE CUTTING.

To even material—Unless the material is perfectly straight before it is cut and the folds are true and even when pattern is placed on it, the finished product will not be straight.

To even material, draw out a woof or filling thread the full width of the material along both cut edges. Cut along this thread. If the crosswise thread cannot be pulled as in pique, the material may be straightened thus: Fold the material back on itself crosswise, about six inches from the cut end, so that the selvages are perfectly true. Crease. Measure up from the fold the same distance across the full width of the material. Cut on this line.

To straighten material—Often materials are not straight tho the edges are evened off by a thread. That is, if they are folded thru the center lengthwise one side will be longer than the other. To straighten such material, hold the short corners firmly and pull diagonally between them from selvage to center fold. If the material cannot be pulled straight, wash and iron it, taking care to iron perfectly straight.

To shrink cotton and linen materials—Place materials, folded in yard lengths as it was when purchased, in warm water, and leave it for about an hour. Remove it and without wringing hang the material over wooden bar to dry. Iron with the grain of the goods, first lengthwise, then crosswise. Materials can be shrunk at the same time the color is set.

To set color in cottons and linens—Use the following for setting colors:

1. 2 cups salt to 1 gallon of water for almost any color;
2. $\frac{1}{2}$ cup of vinegar to 1 gallon of water for setting pinks and reds;
3. 1 pound of alum to 1 gallon of water for very dark color;
4. 1 pound sugar of lead to 1 gallon of water for green;
5. Spirits of turpentine diluted about six times for violets and purples;
6. 1 pound of Epsom salts to 1 gallon of water for setting almost any color.

Mix the reagent with water in the proper proportion. Immerse the material in this solution for several hours or over night. If salt is used, the material may be put into hot solution and left until the water cools. Remove, dry thoroly before washing. If material is solid color it may be left in folds to dry, but if figured open it out.

These methods of setting color will make materials fast only to washing, not to sunlight. Dry colored materials in the shade.

SPONGING WOOLENS.

Sponging serves two purposes; first, to prevent spotting from water and second, to shrink the material so that the garment will keep its shape when cleaned and pressed.

Some woolen cloth can be sponged successfully at home, but heavy woolen materials can better be sponged by a tailor. Woolen cloth can be sponged and shrunk by using wet cloth and a hot iron, pressing on the wrong side of the material. Do not press entirely dry as this flattens the nap of the goods and makes it look hard and shiney.

CONSTRUCTION OF UNDERGARMENTS.

Underwear is the foundation for the outer garment and should be of proper material and so constructed that it will not detract from the outer garment. Undergarments should be of a simple design and simply decorated. White washable material is the most practical. Colored ribbons and colored embroidery are not practical or in as good taste as all white garments.

Nainsook, cambric, longcloth, cotton crepe, sateen and linen are all suitable materials for underwear. Sateen is especially good for slips and petticoats that are to be worn with thin dresses. It also makes serviceable bloomers for winter. Nainsook is a very dainty soft material which admits of simple self decoration, wears well and launders easily. Cotton crepe gives fairly good service and since it requires little or no ironing should be considered for that quality if no other.

Seams—The seams most commonly used in underwear are the French seams and the stitched fell. Whenever a strong flat seam is desired, the stitched fell seam is used. Whenever a seam which does not show on the right side is desired the French seam is used. Plain seams are seldom used in underwear.

Plackets—The continuous, faced and hemmed plackets are used in underwear, according to material and design of garment.

Finishes for neck and armeye—The neckline of undergarments as a rule should harmonize with the neckline of the outer garment. That is, if a thin voile dress has a round neck or yoke the slip worn with this dress is in better taste if it has a rounded neckline also. If straps are used on slips and other undergarments, they should be sewed on properly so that there will be no slipping off at the shoulders. That is, they are of the proper length and width, and set on securely in the correct place on the garment. Little lingerie tapes may be easily made for holding straps in place.

For making these buy a bolt of narrow linen tape and some of the very small snaps. Cut tapes about two inches long and sew snaps near each end. Fold tape in halves crosswise. Then, sew upper half to seam in dress, one on each side of neck. This

leaves ends of loops free to snap around the straps of the undergarments and holds them securely in place.

The neckline and armeye may be finished in a number of simple, serviceable and attractive ways. Simple decorative stitches make a much better finish than cheap thin lace. Narrow crochet, tatting, rickrack braid, stickerie braid, hemstitching or bias bindings make suitable trimmings for underwear.

PRINCESS SLIP.

The princess slip may be made by any good simple pattern. Slip patterns are bought by the bust measure. The slip may be cut round neck or camisole top, depending on the outside garment to be worn over it. A wide hem or facing, coming above the knee is especially good on a slip to be worn under a thin dress. Sateen or cotton satin slips are apt to creep up in front unless faced with soft muslin or nainsook. Sateen, pongee, lingette, muslin, etc., may be used for the slip. Whatever material used should be soft not stiff or bulky so that it will interfere with the outline of the dress. Only simple stitches or edges should be used as decorations. The slip is a foundation and therefore should not detract in any way from the outside garment.

KIMONO NIGHTGOWN.

The kimono nightgown is a type of garment which can be successfully cut, even by beginners, without using a pattern. The following measurements will need to be taken:

1. *Entire length*—From highest point of shoulder to floor, allowing an inch for shrinkage and three inches for hem.
2. *Bust*—Take measure very loosely over fullest part of bust, have it come up closely under arms and raise tape slightly in back. Take this measurement from the back.
3. *Sleeve length*—Take measure from middle of back (up about the bone in the neck) down the arm as long as sleeve is desired.

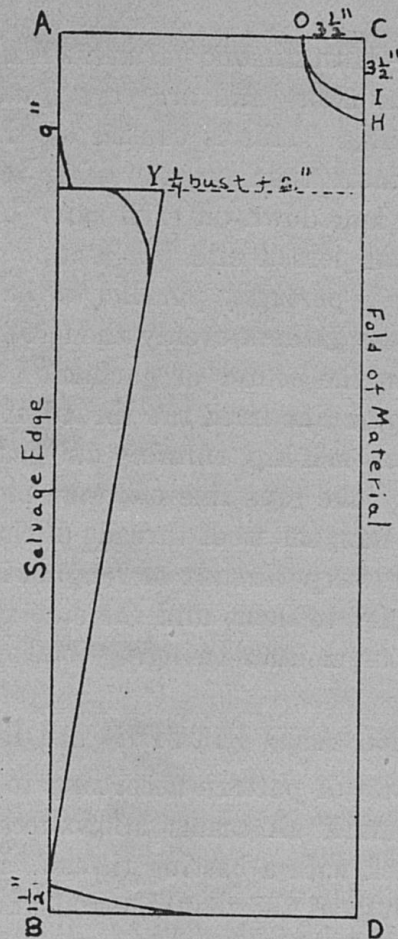
The material required for the garment is twice the length of the individual from the shoulder to the floor plus twice depth of hem desired of material 36 inches wide. This pattern may then be drafted on paper, or the garment blocked out on the material.

To draft the pattern—Cut a strip of paper 18 inches wide and the desired length of gown. Mark corners A B C D. From point A measure down 7 inches to 9 inches for the sleeve, depending upon size of arm and bust of individual. Also from point C measure down this same distance and connect these two points to indicate sleeve line and bust line. The bust line must be larger than the bust measure to allow the gown to slip over the head easily. Since the pattern represents $\frac{1}{4}$ of the gown, find $\frac{1}{4}$ of the bust measure, add 2 inches to this amount and measure from the center front over on the bust line and mark a point Y. From this point draw a line straight to the bottom corner of the paper to represent the side seam. Draw a curve to join sleeve line and side seam line. The gown will tear easily if not rounded under the arm. From point B measure $1\frac{1}{2}$ inches and draw a curve to point D. The neck line can be cut out to fit the person.

Cutting the garment—Straighten the ends of the material by drawing a thread and thrimming evenly. If the material has been pressed crooked in manufacturing, straighten by pulling diagonally. Lay cloth smoothly on large table, fold it lengthwise through the center, pin and then fold crosswise thru center. Smooth all wrinkles from the pattern, pin it to the material with the straight edges along the folded edges of the cloth, cut carefully, following line of the pattern. Do not cut along the shoulder. Cut neck just large enough to slip over the head. Pin and baste underarm seams. Slip gown on and mark one side of the neck with a line of pins in desired shape. Remove and cut neckline by side marked.

USING THE KIMONO PATTERN FOR DRESSES.

The kimono pattern may be used for cutting dresses as well as nightgowns. Not only aprons and housedresses may be made in this manner, but dress-up dresses can be very attractive and becoming when made by a kimono pattern. Percales, prints, gingham, Japanese crepes and linens all make up nicely by the straight kimono pattern. Thinner materials like voiles, organ-dies, and swisses, have to have extra fullness added, or bloused at the waistline to be attractive and comfortable.



ALTERATION OF THE KIMONO PATTERN.

The fullness may be increased at the waistline or hipline and held in place by gathering or plaiting into the dart or by an inverted plait at the side seam. Extra material may be added at the side seam, if the material is not wide enough.

A seam on the shoulder modifies the pattern, and takes out some of the bagginess around the shoulders and makes it a more perfect fitting garment. This alternation can be made on the person after the garment has been cut out and basted up, by pinning up the fullness along shoulder line.

If the waist needs blousing, cut the garment long enough to allow for this extra blousing, sew a casing around inside of belt line, run in elastic that fits just snugly enough to hold blouse in place; or the waist may be cut separately from the skirt; the skirt sewed to an underwaist and top waist bloused over this.

To make a dart—Most kimono garments if not properly fitted will swing out to the front, and are very unattractive and uncomfortable in walking. This is caused by the material being taken up in front more than on the sides, bringing the woof threads up in front and down on each side. After basting the garment up, place on person and pin a tape measure securely around hipline, have it perfectly parallel to the floor all the way round. Distribute the gathers evenly then following the thread of the material from the center of garment gradually pull the material above the tape line until the thread of material is even. Pin darts in place, on each hip, running out gradually to a point in front and back. Take tape line off, take measure and if the darts are correctly taken the woof threads of the material will go straight around, the warp threads or lengthwise grain will run straight from shoulder to floor, and the side seams will be perpendicular to the floor, neither swinging to front or to the back.

CUTTING AND FITTING A DRESS.

Select correct size of pattern according to the measurement of the individual, mark all seams allowances, notches, center front and center back with a basting thread. Pin carefully and baste at seam markings at the shoulder and underarm. Place on the person to be fitted with the seams on the inside, all seams turned to back. Pin together at the opening. Then pin a tape around the waistline and adjust the fullness so that the lengthwise thread of the waist runs straight up and down on the figure. Look the waist over carefully and see that it fits easily throughout.

Shoulder line—First notice the shoulder line as a good shoulder line seems to hold the garment in place. It should not slide to the front or back, but follow along the ridge of the shoulder. For persons who are stooped this line may have to be placed further back. If there are wrinkles at the shoulder, starting from the arm in the direction of the neck, the shoulder seam should be taken up towards the neck. If this makes the neck too high, clip as needed and mark a new neckline. If the wrinkles come from the neck in the direction of the arm, the

shoulder seam needs to be taken up toward the arm. On some figures it may be necessary to take up more from the front of the shoulder than in the back, in order to keep the shoulder line in the correct place, while on other figures the back may need to be taken up more than the front.

Neckline—If the neckline is too small, trim to desired depth on one side and cut other side from this after waist has been removed. If there is a bulge in front of the neck unpin the shoulder seam and slip the front toward the arm until the threads of the waist are straight at center front and all the bulge taken out.

Fullness in front and back—If there is too much fullness, some fullness may be removed by straightening the underarm seam. If there is a slight bulge in the front of the arm, remove by slipping the front seam down in the back, or by taking a little from the front of the underarm seam. Darts may be put in from the underarm seam toward bust line to take up fullness that needs to come out in order to make the crosswise grain of the garment straight.

Underarm seams—The underarm seam should come directly under the high point of the shoulder, and should extend straight down to the waistline. If the garment is a one piece dress, this underarm seam should extend straight down perpendicular to the floor, neither swinging to the front nor to the back.

The armhole—If the armhole is too small clip in as many places as needed to make it comfortable. Trim out, leaving enough material for a $\frac{3}{8}$ inch seam. If the armhole is too large, it may be taken in either at the shoulder or underarm seams when they are being adjusted.

Sleeves—Before basting up the sleeve, mark the center, lengthwise thread and the crosswise thread of the sleeve. This will make it easy to tell when the sleeve is set in right. Baste, pin sleeve to armhole with notches matching. Distribute fullness properly. Baste sleeve into the armhole of the garment. The up and down threads of the sleeve should hang straight from the high point of the shoulder and the cross threads straight across the arm. If there is a pouch at the top of the sleeve, either the

shoulder line is too long or the cap of the sleeve is too high. This can be remedied by trimming the shoulder or the cap of the sleeve. Before cutting off either, pin in place to be sure the right amount is being taken out.

If the sleeve draws and falls in wrinkles starting from the tip of the shoulder, the cap of the sleeve is not long enough. To fit a sleeve that is too short let out at the seam line at the tip of the shoulder. For this reason it is always advisable to allow an inch seam at the top of the sleeve.

If the sleeve is too wide some of the width can be taken out at the seam line. However, if it is much too wide, the fullness should have been taken out in the pattern before cutting out the material (see alteration of patterns).

HEMS FOR SKIRTS.

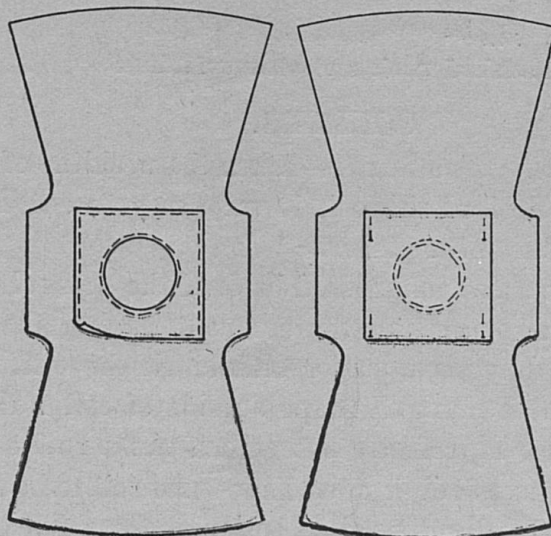
Making the hem line for bottom of skirts—If someone can mark the hem for you, stand on a level surface and let them mark with a row of pins where the edge of the hem is to come. Use a yardstick, holding it perpendicular to the floor at all times and mark with a pin every few inches. If an assistant is not available, put skirt on and place yardstick perpendicular to the floor and close to the body. Put a row of pins around hip-line, marking from the top of the yardstick. Run basting line in where pins are. This gives a line parallel to the floor. Spread skirt out on a table and measure down at right angles to this line, the correct number of inches to make the skirt the desired length.

Turning the hem—Run a basting thread or crease on the row of pins. Lay the skirt out upon the table and measure up from the finishing line at close intervals, the depth wished from finisher hem plus $\frac{1}{4}$ inch for turn. Use cardboard gage for measuring and mark carefully with pins or chalk line the depth of hem. Cut on line marked for straightening edge of hem. There are several ways of removing any fullness at the top of hem. The fullness may be taken out in small darts which are basted down, or by gathering the fullness in top of hem with fine gathers, and drawing up to fit the skirt at this place. In heavy materials, some of the fullness may be shrunk out.

Finishing top of hem before hemming down—When material is not heavy, the edge may be turned and stitched. If material is thick, a bias binding or Prussian seam binding may be stitched $\frac{1}{4}$ inch from top of hem and the other folded edge is hemmed down to skirt. Very heavy non-raveling woolen material is sometimes just pinked at top of hem

Putting in hems—It depends on the material as to way in which the hem is put in. In some inexpensive dresses that are for utility it is advisable to stitch the hems in. In other materials, as nice linens and woolens, the hem is more inconspicuous when put in by hand, with a hemming or catch stitch. Before hemming any hem press well.

Depth of hems—The width of the hem in any garment is a matter of proportion. For good proportion, hems in children's dresses should not be less than $2\frac{1}{2}$ inches in width. Wider hems give a feeling of support at the bottom of a dress and also allow for lengthening. The hem in an adult's dress is rarely less than 3 inches. A dress of thin sheer material may have a deeper hem than a dress of heavy material.

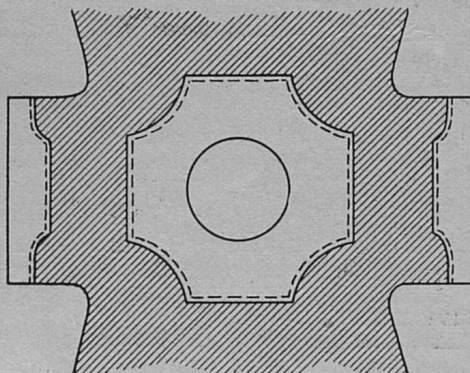


Neck facing applied before stitching
(side seams)

SHAPED NECK FACINGS.

Shaped facings may be quickly made and should be put on before the side seams of the garment are sewed up on the ma-

chine. After the garment has been fitted and the neck line has been trimmed as desired, place the right side of the facing material on the wrong side of the garment; pin evenly, baste, stitch around the neck line from the wrong side of the garment. Cut the seam edge to almost touch the stitching at frequent intervals so that the facing will be perfectly smooth when turned to the right side. Turn facing through to the right side and press the folded edge. Shape outer edge as desired; turn in the raw edge, pin, baste and stitch



Finished neck and sleeve facings

COLLARS.

How to cut collars and cuffs—After the neckline of the dress has been cut the desired shape it is very easy to cut a collar to fit the neckline without a pattern.

1. To make a flat collar, fold back of the dress through the center and fold also through center front having the shoulder seam matching. Lay on a paper and mark the outline of the neck. Then cut this line and shape outside of collar the desired shape. This makes a perfectly flat collar. As a rule a perfectly flat collar is not successful, it must have some roll to be attractive.

2. To make a slightly rolled collar, make a flat collar pattern and change thus—Lay this pattern on another piece of paper, add $\frac{1}{2}$ inch in the center back and take off $\frac{3}{4}$ inch in the front. The outer edge may be cut any shape. A collar cut from this pattern will roll, as $\frac{1}{4}$ inch has been lost in cutting and necessitates stretching the collar on the neckline of the garment.

3. High rolling collar—the straighter the inside line of the collar is the more roll there will be. The highest roll collar is made by a straight piece.

Making the collar—Collars may be single or double thickness. If a collar is single, the outer edge may be finished in the numerous ways that edges are finished. If the collar is double, pin the two pieces with the right sides together. Baste and stitch with a $\frac{1}{4}$ inch seam around outside edge. Trim and clip at corners and turn right side out. Crease, press and baste to prevent slipping.

Attach collar to the garment with a facing. If collar is double, the outside and the lining may be attached with separate seams by first stitching lining to garment, and then turning under the outer collar and stitching down by machine or by hand.

Cuffs are usually cut to harmonize with the collars and may be applied in the same manner. If there is any fullness in the bottom of the sleeve it should be distributed correctly before the cuff is attached.

BOUND BUTTONHOLES.

Bound buttonholes are decorative as well as practical. They can be made in any material. The binding may be made of the same or contrasting material. Plaid or striped material should be cut on the bias when used as a binding.

1. Mark the position and the exact length of the buttonhole with contrasting basting thread, straight with a thread of the material.

2. Cut the binding $1\frac{1}{2}$ inches longer than the buttonhole and two inches wide.

3. Crease this binding thru the center lengthwise straight with a thread of the material.

4. Place the crease of the binding on marking for the buttonhole. Pin in place, and then baste (having the right side of the binding basted to the right side of the material).

5. Stitch on wrong side around the thread which is marking the buttonhole, stitching $\frac{1}{8}$ inch each side and across the ends, corners must be square.

6. Cut along the basting line to within $\frac{1}{8}$ inch of each end and from these points cut diagonally into each corner to the stitching but not thru it.

7. Turn the binding piece thru to the wrong side. Fold the binding evenly over the cut edges on the wrong side, and lay the fullness at each end of the buttonhole in an inverted box plait. Press well.

8. Stitch on the right side in the crease made where binding and material are joined together. The plait on the underside is held together by small stitches. The buttonhole on the wrong side may be finished in three ways:

a. Trim binding along sides turn under the raw edges of the binding even with the stitching and hem or stitch them down to it. If machine stitching is used it should be made from the right side, and in the crease. Trim and overcast raw edges on ends.

b. Stitch binding down without turning raw edge. Trim and overcast the edges along the sides as well as the ends.

c. Cover the wrong side with a facing. Whenever there are two thicknesses of material where the buttonhole is placed this method may be used, and forms a much nicer finish. Make the buttonhole thru one thickness as before. Place the facing or hem in position in which it will be when garment is finished, and baste in place. From the right side put pins straight down through to designate on the facing the position and length of the opening. Cut the facing from pin to pin, tuck in the raw edges between the two thicknesses and hem down to the buttonhole binding. Careful pressing from the right side is essential to attractive appearance.

BOUND OR SET-IN POCKETS.

The set-in pocket is made in very much the same manner as the bound buttonhole except that the binding piece is usually large enough to complete the pocket as well as to bind the edge of the opening.

Cut a straight piece for the pocket 1 inch wider than the pocket width and as long as twice the depth of the pocket plus

2½ inches. Place one end of the binding piece over the mark for the pocket, with the end extending 1¼ inches above the mark and the right sides together. Follow all steps up to No. 9 given in the making of the bound buttonhole. Then turn the lower end of the pocket piece up to the upper end and stitch across the top and down the sides. The edges of the pocket may be finished by binding or overcasting. Place another row of stitching on the right side in the crease on the upper side of the pocket opening thru both the garment and the pocket. This last stitching will keep the top of the pocket from dragging down. The ends of the pocket opening may be finished with a bar-tack or arrow head.

Pocket with bias binding—Bind opening of pocket with the bias binding by same method as used for bound buttonhole. Then attach a long piece of material to the lower part of the binding and bring it up to form the pocket finish as before. If pocket is circular, it will be necessary to attach to shaped pieces, one to the upper and one to the lower part of the binding. Stich around edges, and finish.

Reference:—Bound Buttonhole and Pockets, Circular No. 187, College of Agriculture, University of Kentucky.

SELECTION OF ACCESSORIES.

The Hat—In choosing a hat the following points should be considered:

1. Hat in relation to the wearer.
2. Hat in relation to the occasion.
3. Hat in relation to wardrobe and costume.

The person should be standing before a full length mirror in order to see that the size of the hat is suited to the figure and the rest of the costume. Care should be taken not to accentuate undesirable lines or features. This is best accomplished by avoiding the extreme styles and selecting simple shapes with simple trimmings. Make sure that the shape and color is becoming to face, head and the rest of the figure.

A simple hat of straw or felt, or a simple shape covered with good material and decorated with good simple trimmings can be worn on all occasions.

Care must be taken to choose a hat that matches the rest of the wardrobe in color, style and fabric. When a hat is to be used for all occasions, a neutral color should be selected. Often an unbecoming hat can be made attractive by the use of a becoming colored facing.

Reference:—Selection, Renovation and Making of Hats, Circular No. 173, College of Agriculture, University of Kentucky.

Shoes and Hose—Shoes and hose are very important items in any costume. The club girl should select hers for comfort, durability, simplicity and suitability. They should be of such a color that they harmonize with the rest of the costume and the wardrobe. The color of the hose does not have to match the shoes but should harmonize. The length of the foot of the stocking should be ample. Short stockings may cause as much trouble as too short a shoe. Shoes should be carefully fitted as they wear longer and keep the feet normal and healthy. Approved shoes have the following points:

1. Straight inner line.
2. Flexible arch.
3. Low broad heels.
4. Toe wide enough to allow for comfort and movement.

Other Accessories—Beads and other decorations should be chosen carefully and sparingly. Beads and jewelry do not belong with school costumes and more often detract rather than add to this costume.

A tie or bright ribbon used in the right way may add the needed touch of color to a dull or uninteresting dress.

CARE OF CLOTHING.

A girl's clothing may be well selected and well made, but unless it is well cared for and kept in good condition she is not well dressed. To keep garments in good condition:

- Air all garments after wearing.
- Brush and dust dirt from silks, woolens and hats.
- Remove soiled spots.

Press when clothes need pressing. No matter how carefully clothes are brushed and hung they need pressing occasionally.

Hang dresses, shirts and coats on hangers, if there are not enough hangers available old magazines may be rolled tightly and tied together thru the center and suspended by a loop.

Mend and remove stains before laundering.

STORING CLOTHING.

Remove all spots from woolen clothing before storing as soiled places are likely to attract moths. After airing clothing, store in moth proof bags or boxes. Boxes may be wrapped well in newspapers to prevent moths getting in. Tie up and label. Moth balls, tar ball or cedar chips may be scattered among woolens before storing as the pungent odor is irritating to insects. Silks should be rolled rather than folded as the folding may crack the fiber.

REMOVAL OF STAINS FROM CLOTHING.

Many stains may be removed at home by simple methods. A stain should be removed as soon as possible. Before trying to remove a stain, determine the kind of stain and then find out what will remove that stain. The method of treatment will also depend upon the kind of fabric, since color, weave and finish may be affected.

Soils or stains may be divided into two groups as:

I. *Organic*

a. Animal stains from blood, perspiration, egg, meat and milk.

b. Vegetable stains from fruits, grass, mildew, oils and vegetables.

II. *Inorganic*

Stains from acids, alkalies, mud, dye, ink, medicine, paint, wagon grease, etc.

Many stains are soluble in water, and may be washed out by the regular laundry process. It is wise to try cold water when in doubt as to the kind of stain, as hot water may set stains. Soaps also set some stains, therefore it is safer to use clear, cold

water on an unknown stain. Grease stains treated with hot water are likely to darken and white of egg and blood are set by hot water.

HOW TO REMOVE SPECIAL STAINS.

Blood—Soak in cold or lukewarm water and wash in lukewarm water until stain disappears. If necessary use soap or ammonia with the water.

If heavy or new goods, make a paste of raw starch and warm water. Spread on stain and as fast as starch is discolored, make a new application.

Egg—Wash in cold water.

Mucus—Handkerchiefs may be soaked in salt and cold water using two tablespoonfuls of salt to one quart of water. Soak for several hours. Wash in warm water with soap. Boiling of the handkerchiefs will sterilize and whiten them.

Perspiration—Use soap and water for white washable fabrics.

Fruit—Spread stained part over a bowl, pour boiling water on it from a height so as to strike the stain with force. Borax will help remove a stubborn stain. Application of a solution of sodium bisulfite bleaches fruit stains without injury to the fabric.

Coffee—Pour boiling water over as for fruit stains.

Grass—Wash a fresh stain in cold water. Moisten with kerosene, let stand a short time, then wash with soap and water. Alcohol or ether will dissolve the green coloring matter when the material cannot be washed.

Mildew—If the mildew is very fresh and has not attacked the fiber, it will wash out in cold water. The hypochlorite bleach may be used on cotton and linen material.

Chocolate or coca—Wash in cold water with soap. If stain is hard to remove, cover with borax, wash with cold water, then boiling water will remove the trace of stain.

Grease and oil—Wash in warm water with soap. Remove traces of grease stains by bleaching with hypochlorite. For axle grease, cover stain with lard, then wash with warm water and soap.

Iron rust—Sprinkle stain with salt and moisten with lemon juice; lay in the sun. This will take color out.

Paint—If paint is fresh use at once yellow soap and water. If goods is washable turpentine or gasoline will help soften the paint.

Ink—It is hard to determine how to treat ink stains as different kinds of ink make different kinds of stains. Many contain iron and should be treated like iron rust. Commercial ink eradicators may be used on obstinate stains. Follow directions carefully and rinse well with water.

Bleaching methods—The best bleaching agents are sunshine and fresh air; however, it is sometimes necessary to use a chemical. A solution of hypochlorite such as Javelle water or chlorinated soda is probably the best bleach for garments that have become yellow with age. It should be used only on white fabrics as it removes color.

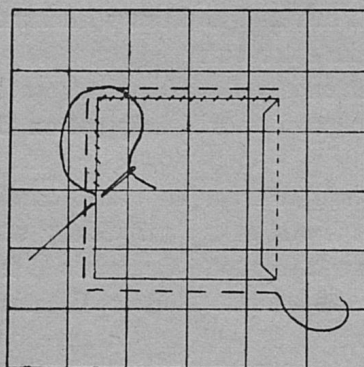
Hypochlorite bleach (recipe)

- 1 lb. washing soda
- 1 qt. boiling water
- ½ lb. chloride of lime
- 2 qts. cold water

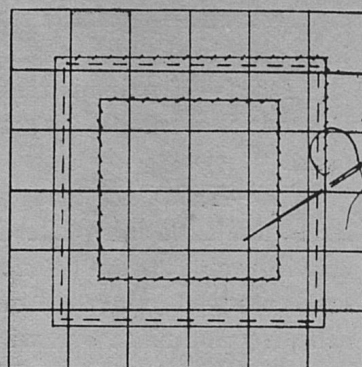
Put soda into an agate pan and add the boiling water. Mix the lime with the cold water. Mix the two solutions, stirring well. Let the mixture settle and clear. Bottle the clear liquid and keep it in a dark place. Should the solution turn pink from exposure, it has not in any way become harmed.

To remove stains from white goods soak the article in equal quantities of Javelle water or hypochlorite bleach and hot water until the stain disappears; then rinse thoroly in several waters and finally in dilute ammonia water (1 lb. ammonia to 2 qts. water.) Boiling in Javelle water is a risk that should be taken only after all other resources have failed.

References—"Home Laundering," by Balderston; Lippincott Publishing Company. "Removal of Stains from Clothing and Other Textiles," Farmers' Bulletin No. 861, U. S. Department of Agriculture, Washington, D. C.



A - Right side



B - Wrong side

PATCHING.

HEMMED OR SET-ON PATCH.

This patch is used for repairing undergarments because it is strong and will stand repeated laundering. Usually it is square or oblong in shape. Cut away the irregular worn part around the hole leaving a square or oblong hole. The patch should be of the same material as the garment and if the garment is faded the patch should be washed until of same color. If there is a design in the garment as plaid or stripes the design in the patch should match. Cut the patch carefully, following the thread of the material, $\frac{3}{4}$ inch larger on all sides than the hole, which means that the patch is $1\frac{1}{2}$ inches wider and longer than the hole. Lay the right side of the patch to the wrong side of the garment, see that all margins are exactly even, pin and baste carefully into position.

Turn garment to right side, cut with diagonal slashes at all four corners $\frac{1}{8}$ inch deep. Turn edge of garment material under $\frac{1}{8}$ inch all around hole; baste, then hem to patch; take care to make square corners. Turn to wrong side. Turn under edge of the patch $\frac{1}{2}$ to $\frac{1}{4}$ inch all way around; baste and hem to garment with fine stitches.

OVERHAND OR SET-IN PATCH

This patch is very neat and less conspicuous than the hemmed patch, therefore, it is used more often for patching

outer clothing. It is less durable, however, so is seldom used on garments that require constant laundering.

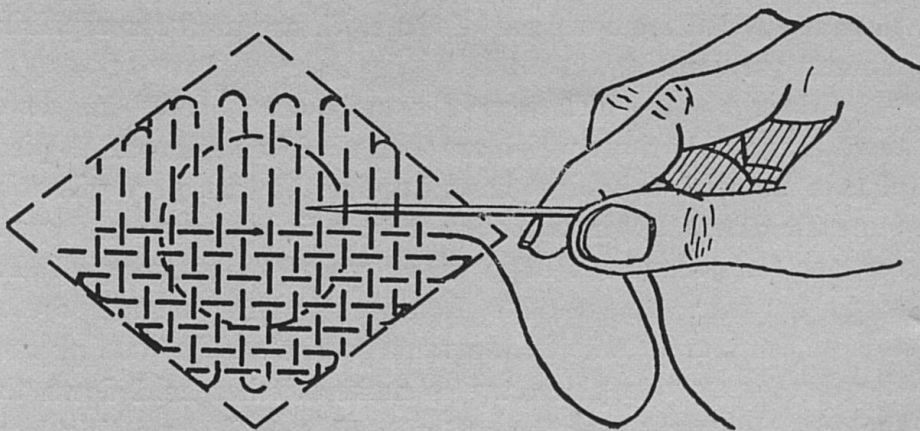
Prepare hole in the garment as described for hemmed patch. Then clip diagonally, outward from the corners of the hole $\frac{1}{4}$ inch and crease the edges to the wrong side, baste in position if the material will not hold the crease easily. Cut a piece of material for a patch large enough to cover 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. Pin in position. Turn back the edges of the patch to exactly fit the hole. On the wrong side overhand the two folded edges together with small stitches so the seam will lie flat. The raw edges of the seams should be overcasted to prevent raveling.

DAMASK PATCH

It is often necessary to patch table linen which has a large hole in it. Do not cut the edges of the tear, but cut off the loose threads. Place a piece of damask under the tear and darn it to the worn material with regular darning stitches.

DARNING

Darning is the replacing of worn or torn threads with a weaving stitch. Tears in cloth may be darned as well as holes in stockings and other knitted fabrics.



STOCKING DARNING

The darning cotton should match the thread of the stocking in both size and color. Use a long eyed needle not too coarse. Place darning inside stocking; trim away the ragged edges around the hole. On the right side of the stocking, about $\frac{1}{2}$ inch from the edge of the hole, run a thread of contrasting color in diamond shape. This outlines the darn and the finished darn is diamond shaped as this prevents the strain from coming on any one row of loops in the stocking. Darn the lengthwise way with the ribs of stocking first, beginning at lower right hand corner. Use short running stitches, turning at the edge of the basted outline. Leave about $\frac{1}{8}$ inch of the thread in a loop at turn to allow for shrinking. When the hole is reached catch into the edge on the other side; continue the running stitches to the line. Repeat until all the space has been filled in. Turn and fill in wool threads the same way. When the hole is reached go over one thread and under next until hole is crossed then take running stitch to guide line. Repeat, taking up alternate threads until darn is finished. Remove basting thread and press.

When a thin spot shows in the foot of a stocking a few rows of darning will often reinforce the spot so that the hole does not appear.

CLOTH DARNING

Darning on cloth is used to repair straight, diagonal and three cornered tears. Use thread to match material. Often threads raveled from a piece of the cloth are used for repairing the torn garment

Straight tear—This tear is usually across only one set of threads and only those which are torn need be replaced. A piece of thin material as bobinet basted under the torn part will reinforce the darn. Begin without a knot a little above and beyond the tear for strength. Fill in with rows of fine running stitches across the tear. The stitches should extend far enough to each side of the tear to take in the worn part also. In passing over the threads at torn place, try to make stitches hold down the threads. In turning at the end of each row, leave a tiny loop.

Finish by extending the rows by running stitches beyond the tear.

Three cornered tear—This is a combination of torn warp threads and torn woof threads. Outline the space to be darned as before. Darn in the warp threads from one end to the corner of the tear and then replace the woof threads in the same manner. In the corner of the tear there will be a square darn with the new warp and woof threads interlacing.

Bias or diagonal tear—In a bias cut, both the warp and woof threads are severed, so both sets of threads must be replaced, mark outline for repairing as before. Fill in warp and then the woof threads. Be careful not to stretch the bias edge.

Darning and patching can be done on the sewing machine thoroly and quickly. It takes practice, but is worth while when the saving of time is an important factor.

SCORE CARD FOR DARNING.

	Score		
	Perfect	Deduction	Actual
Materials (30)			
Suitability of Material			
Kind of thread	10		
Weight of thread	10		
Color	10		
Workmanship (70)			
Method (weave size of darn in proportion to hole)	20		
Stitch			
Size and evenness	10		
Tension	10		
Direction	10		
Neatness of finish			
Method of joining thread	5		
Finish on back	5		
Flatness and smoothness	10		
TOTAL—	100		

SCORE CARD FOR GARMENTS.

	Score		
	Perfect	Deduction	Actual
Suitability to purpose (50)			
Material (20)			
Hygienic quality (laundrying qualities)	5		
Wearing quality	5		
Suitability to purpose	10		
Texture			
Weave			
Design of fabric			
Color			
Design (30)			
Suitability to individual			
Line	5		
Proportion	5		
Color	5		
Harmony	10		
Hygiene	5		
Construction (50)			
Pattern lines	15		
Matching design in material			
Accuracy of cutting			
Evenness of seams			
Finishes	20		
Stitching			
Seams			
Gathers			
Binding			
Facing			
Hems			
Fastenings			
Trimmings			
Ease of adjustment (5)	5		
General appearance (10)			
Cleanliness	5		
Pressing	5		
TOTAL—	100		