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Sewing Handbook for Montana Clothing Club Girls

BY

EMILY A. LINHOFF, *Assistant State Club Leader*

RUTH PATCHIN, *State Clothing Specialist*

For information concerning Boys' and Girls' Club Work, write
to the State Club Leader, Bozeman, Montana.

TEXTILES

The selection of materials necessitates a knowledge of the fiber of which the fabric is made, the methods of manufacture, ways of adulteration and the tests for determining the choice of the material to be used. Each fiber has characteristics which make it peculiarly adapted to certain uses.

COTTON

Cotton is the most commonly used fiber as it enters into nine-tenths of the textile material of every day use. It is of vegetable origin and has short, flat fibers with spiral twist which make it able to be spun into fine thread.

Cotton fabrics show the following characteristics:

1. Good quality materials are strong and durable.
2. Unsized cotton is soft and pliable.
3. Dirt adheres to cotton as it has a fuzzy surface and contains a natural oil which catches dirt quickly. Therefore it soils quickly.
4. Cotton is laundered easily. It can be boiled without injury to the fiber. It takes starch well, so it can be kept looking fresh.
5. Acids destroy the fiber. (If acid is used in removing a stain, wash thoroughly.) Perspiration will injure and weaken cotton cloth.
6. Cotton takes up dye but not as readily as silk and wool. All yarn dyed materials hold their color better than piece dyed or printed goods.
7. When tightly woven, cotton is a good conductor of heat so is valuable as a summer fabric. When loosely woven, as in knitted wear, it conducts heat less rapidly, therefore it is used extensively in winter underwear. The napped surface of outing flannels and cotton blankets makes the material a poor conductor of heat and so are warm while new. When nap is flattened it loses some of its warmth.

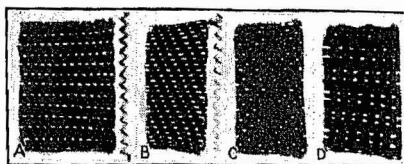
Weave

All materials are made of two sets of threads woven over and under each other in some method. The threads which run lengthwise of the material are called "warp" threads; while those which run across

the cloth are filling or "woof" threads. Where the filling threads turn to go across the warp threads a firm edge is made. This edge is called the "selvage."

Kinds of Weave

- (a) Plain Weave
- (b) Twill Weave
- (c) Satin Weave
- (d) Variation Weave (basket)



1. *The plain or tabby weave* (a) is the simplest kind of weaving. This is made by passing filling threads through the warp in regular order, alternately going under and over a thread until the selvage is reached, when it turns and goes back, passing under the thread it passed over in the previous pick. This makes a strong firm cloth.

Example: Muslin.

2. *Twill weave.* In the twill weave (b) the warp threads cross over and under the woof in a regular variation, sometimes over one thread and under two threads, or over one and under three, the filling moving forward in a regular progression of one. This gives a diagonal effect to the cloth. Twills are firmer and stronger than plain weaves.

Example: Denim.

3. *Satin and Sateen Weave:* Satin weave (c) is somewhat like twill, but no trace of twill may be seen on the cloth. A filling thread is made to pass under one and over from six to twelve threads. The interlacing is done at irregular intervals, thus preventing a twill from showing. The terms satin and sateen are both used for this weave. If the filling is brought to the surface it is called sateen, and if the warp is on the surface it is called satin weave. A thread which passes over several threads is called a "float." Strength of this weave depends somewhat on the size of the float. With long floats the surface is apt to rough up.

Example: Sateen.

4. *Variations.* The plain or twill weave is often changed in some way (d). Sometimes the two kinds of weaves are used. It takes more

time and work to weave these, which increases the cost. Strength varies according to the weave.

Examples of the variations: Dimity, poplin, pique, monk's cloth.

FINISH

Cotton materials depend greatly on finishing for their effect and the resemblance of cotton to other textiles is principally a matter of dressing and machine finishing.

1. *Sizing*. (filling, weighting) is material added to cloth in the finishing processes to give it body. Various substances are used, including starch, glue, clay and glycerine. All cotton materials have some sizing to keep them in good condition while being handled in the shops. Excess amounts of sizing are often added to give firmness and weight to inferior material.

2. *Mercerization* is a process in which cotton is treated chemically to give the fiber a silky luster. The cotton, either the yarn or cloth, is stretched over rollers and run through a bath of strong, cold, caustic soda solution, after which it is rinsed in water and dilute acid. Mercerized cotton is more expensive than ordinary cotton but is heavier, stronger, and more silky looking and gives very good service. The luster is permanent and mercerized cotton takes the dye more readily than ordinary fibers.

Adulteration

Cotton, being the cheapest of all materials, is never adulterated with other fibers but the cheaper grades are "sized" with starch, glue or china clay to give appearance of a heavier and firmer fabric. Heavily "sized" cotton does not launder well. Imitation dots or designs are pasted or printed on this cloth and come off in the laundering or turn brown when ironed.

Tests

1. *Test for Sizing*. If a heavy cotton, tear or rub vigorously and if a fine dust appears, you will know it has been sized. If a light weight cloth, hold up to the light and look through it. If heavily sized, you can see it between the threads of the weave. Boil a sample of material you think is sized. Washing will remove the sizing, leaving the material with body and showing loosely woven cloth of poor quality.

2. *Tests for Method of Dying.* There are three methods of dyeing—yarn dyeing, piece dyeing and printing. The yarn dyed cloth is much better.

(a) Ravel out threads; if of one color, it is yarn dyed. Chambray and gingham have the same color, on both sides of the goods.

(b) When unravelled threads show white specks the cloth has been "piece" dyed.

Example: Galatea, percaline.

(c) When threads are mottled or dyed in spots it has been printed. Good printed material should show the distinctness of pattern on wrong side.

Example: Percale, cretonne, calico.

3. *Test for Color.* Wash a sample of material several times and hang in the bright sunlight to dry. Place it beside the unwashed sample.

4. *Burning test.* Ends of cotton threads spread out when burning. It burns readily, leaves a fine gray ash and has an odor like burning leaves.

Suitability of Cotton Materials to Garments and Household Uses

1. *Undergarments.* Nainsook, long cloth, dimity, Berkley cambric and finer grades of muslin. Plain white material is always preferred.

2. *Aprons.* Percale, gingham and better grades of calico, unbleached muslin, Japanese crepe.

3. *Dresses.* (Simple type). Chambray, gingham, percale; (Dressy type) Voile, organdie, batiste, French gingham, dotted swiss, dimity, poplin.

4. *Separate Skirt.* Indian Head, pique, gabardine, drilling, khaki.

5. *Middies.* Drilling, galatea, Indian Head, poplin, khaki.

6. *Household Uses.* Indian Head, crash, unbleached muslin, used as a substitute for linen in table linens and scarfs.

LINEN

Linen was at one time the most important vegetable fiber and was used commonly for all household purposes, but now it is called the "textile of luxury," as its expense stands in the way of its common

use. Linen is of vegetable origin and the fibers are long, smooth and quite lustrous when spun into a thread. It does not have so many fuzzy ends as are found in cotton.

Linen fabrics show the following characteristics:

1. Strong and durable.
2. Cool, and has leathery feel.
3. Snowy white when bleached.
4. Does not take dye readily and fades quite quickly in both sun and water. Therefore it does not retain stains as persistently as cotton, making it of value as table linen.
5. Wrinkles easily.
6. Not affected by dilute alkali solutions. Not affected by acids as easily as cotton.
7. Absorbs and gives up moisture, making it of value for towels.
8. Is smooth and glossy when laundered.
9. Because of long, smooth fibers it keeps clean longer than cotton.

Weaves

The typical weaves in linen are plain weave for clothing and coarse crashes; damask, satin or sateen weave for table linen and towels; Huck, an uneven weave, is best for toweling as it gives a good surface for absorption of water.

Finish

If the linen is of good quality, not much dressing is added, as the luster of the flax may be brought out in beetling and pressing. Cheap, poor linens are, however, often loaded with foreign substances, such as starch, clay or wax.

The beetling process is used to give gloss to the surface and also the leathery feel, which is characteristic of good table linen. It flattens and closes up the threads and produces a luster.

Adulteration and Imitations

1. Mercerized cotton, because of its gloss, often is sold as linen.
2. Cotton, when treated with magnesia, gives a cool feel resembling fine linen.
3. Sizing is used to make inferior linen appear a better grade.

4. Cotton yarn is spun to imitate linen yarn and is then woven into linen weaves and sold as linen.

Example: Cotton crash.

5. Cotton is woven with linen as in linen and cotton huckabuck, and sold for all-linen.

6. "Union" cloth: made of part linen and part cotton, sold for towels, tablecloths, sheets and dress fabrics. It is hard to care for and is not as durable as all cotton or all linen. Not as objectionable in towels as in tablecloths.

Tests

Linen is hard to distinguish from cotton, especially when heavily starched and given a good finish. Because of its cost do not depend on one test but try them all so you will have no doubt as to the fiber.

1. *Oil test.* Remove sizing by washing. Place a drop of oil on the cloth and press between blotting papers. Place sample on dark surface to show the effects. Linen becomes transparent; cotton remains opaque.

2. *Sizing test.* Sized linen feels harsh and stiff. Unsized linen feels leathery, soft and flexible. Test for sizing by rubbing vigorously or boiling.

3. *Ink test.* Place a drop of ink upon cotton and upon linen which is free from sizing. Linen absorbs the ink readily while the ink stands upon the surface of the cotton a few seconds before it is absorbed.

4. *Burning test.* Linen burns more slowly than cotton and the ends stand erect and compact while those of cotton spread out in every direction.

5. *Breaking test.* Ravel out threads and break. Linen is more difficult to break than cotton. The end of a linen thread remains straight, the end of a cotton thread curls up.

Suitability of Linen Materials to Garments and Household Uses

Dresses. Handkerchief linen, butcher's linen, dress linen, unbleached linen.

Skirts. Linen crashes, butcher's linen.

Household Uses. Table linen-damask; Towels-husk, damask, crash; Table and dresser scarfs, doilies—butcher's linen, crash.

WOOL

Wool is the second most important commercial fiber. It is particularly suitable for clothing and household uses, because of its nature. It is of animal origin. The fibers are round, wavy, and covered with small scales. The waviness gives it elasticity and this, combined with the scales, which cause the fibers to cling together, enables it to be spun into fine yarn. Under heat and pressure it mats together into felt.

Wool fabrics show the following characteristics:

1. Absorb great amount of moisture without seeming wet.
2. Very elastic; wrinkles shake out of all wool easily where they will not out of cotton and wool mixtures.
3. Difficult to launder; very hot water and sudden changes in temperature of the water cause it to shrink. Strong soap makes it harsh.
4. Wool dyes easily, and usually holds the color well.
5. Not a good conductor of heat, therefore valuable as a winter fabric.
6. Scorches easily.
7. Wool materials are divided into two classes, woolens and worsteds, and are distinguished in the following ways:

Woolens: In woolens the fibers are short and when made into yarn they cross and are matted and intermixed. This makes an uneven and irregular yarn. Finished woolen material is soft and the weave is not always distinct.

Worsteds: In worsteds the fibers are long and when made into yarn they lie parallel. This makes a fine, even and wiry yarn. Finished worsted material is firm and well woven. The weave is well defined.

Weaves

The plain and twill weaves are most commonly used in making woolen material. Usually effects are gained by yarns twisted in novel ways, by combining other fibers with wool and by finishing and dressings applied after weaving.

Examples of weaves.

Plain—flannel.

Napped surface—broadcloth

Twill—serge.

Satin—Prunella.

Finish

The final finish to cloth is given by steaming, cleaning, pressing and brushing, all used in varying degrees.

Woolen goods when taken from the loom is coarse, rough and dull looking and the beauty of it depends upon the finishing processes.

Worsted goods when taken from the loom look much as in the finished state, as the beauty of it depends upon the weave.

Adulterations

Wool materials are cheapened and adulterated by using cotton, shoddy and waste wool.

Cotton with wool is not always an adulterant or a disadvantage. Cotton with wool mixtures in material which must be laundered, such as underwear, frequently give very good service, as the percentage of shrinkage is less than in all wool. Certain materials as alpaca, brilliantine and mohair always have cotton warp and give excellent wear. Cotton with wool is a disadvantage in suits and skirts as such mixtures require frequent pressing. They do not hold the color as well as all wool.

Ways in which wool is usually adulterated are :

1. *Cotton used with wool.*

(a) Cotton fibers spun with wool.

(b) A wool and cotton yarn twisted together before weaving.

(c) Cotton warp and material with all wool filling or only a part.

(d) Cotton foundation with wool felted on the surface as is found in cheap coat materials. These soon wear threadbare.

2. *Shoddy or remanufactured wool.* This is made by reducing old wool to the fiber state. It may be made into cloth and sold as new wool or it may be mixed with new wool or cotton. Its serviceability depends on quality of the waste from which it comes and quality of new wool with which it is mixed. Shoddy extends the use of wool and is legitimate because it reduces the cost of warm clothing.

3. *Finish* is often applied to the surface of cheaper woolen fabrics to give a temporary luster.

Tests

Feeling test. Wool feels warm and springy.

Fiber test. The threads pull apart rather than break.

Burning test. Wool burns slowly, chars, has odor of burned feathers and leaves black ash in the form of a ball.

Lye or caustic potash test. Two tablespoonfuls of fresh household lye to one pint of water. Cover sample in this solution. Wool will become jelly-like in a few minutes and will entirely dissolve in 5 to ten minutes. Cotton is not affected.

Suitability of Wool Material to Garments

Dresses. Woolen, Challies, broadcloth.

Worsted: Serge, tricotine, Poiret twill, Prunella cloth.

Suits and Coats—Woolen: Broadcloth, velour, duvetyne, homespun tweed, Bolivia cloth.

Worsted. Poiret twill, serge, tricotine, gabardine.

Infants Clothes. Flannel.

SILK

Silk is often called the fiber of luxury. It is the most expensive to cultivate but the most beautiful and the strongest fiber. Silk fibers are obtained from cultivated and uncultivated cocoons.

The fiber from cultivated cocoons varies in thickness and length and when it comes off in one long, smooth, lustrous thread, it is called reeled silk. If the fiber is short, as it will be from the imperfect cocoons or cocoons broken in the reeling process, it is made into spun silk.

The fiber from the uncultivated cocoon, known as wild silk, is rougher, coarser, and darker in color than the cultivated. It is difficult to bleach and dye so it often is used in natural shades, as in pongees.

Characteristics:

1. Poor conductor of heat.
2. Strong when pure, wears well.
3. Scorches easily.
4. Injured by high and sudden change of temperature. This necessitates washing silk materials in lukewarm water and pressing or ironing with moderately warm iron.
5. Sheds dust and dirt quickly.

Weaves

Except for some special materials the processes of weaving silk are similar to those of other textiles.

Examples of weaves are:

1. *Plain.* Japanese, pongee, taffeta, crepe de chine.
2. *Twill.* Serges and foulard.
3. *Satin.* Messalines and satins.

Finishes

The general aim of finishing silk material is to increase the luster and also to improve the cloth. The best silk fabrics require little dressing and are finished by pressing. The poorer, cheaper silks and half-silk materials are immersed in dilute acids to give a glossy surface.

Adulteration and Substitution

The effort to cheapen silk has tended to develop numerous processes which give effects that pass for real qualities with the ordinary consumer.

1. Cotton is woven with silk as in cotton backed satin and velvets.
2. Mercerized cotton is sold as silk.
3. Cotton thread spun with irregularities to imitate the yarn of wild silk which is found in pongee.
4. Typical silk patterns, as brocade designs, are found woven in cotton and sold as silk.
5. Cotton, linen or wool used as fillings in corded silks and poplins. This is not a disadvantage unless the filling is too heavy and in this case the material will split.
6. Weighting—Silk has a property of absorbing metallic salts, such as iron and tin in solution, increasing its weight and making fabrics with a desirable texture but poor wearing qualities. Taffetas and stiff silks are weighed more than soft silks.
7. Artificial silk—A product of modern chemistry. It is made from cotton or wool pulp which is so treated chemically that the product is long, lustrous threads. It has a higher luster than real silk, is wiry, and inelastic. It does not stand moisture as well as real silk. It is used for hosiery, ties, sweaters, embroidery, baronette satin, tricolette, and novelty materials.

Tests

1. *Burning.* Silk burns much like wool, only more rapidly, leaving a black residue. When heavily weighted the burned fabric retains

original shape of piece of material, slightly smaller than the sample. This residue is the weighting which does not burn easily but crumbles at the slightest touch. The larger the residue the greater the adulteration.

2. *Feeling.* Smooth, cool and very elastic.

3. *Tearing.* Plain silk tears with a shrill sound and leaves a rather clean edge. Ravel threads and examine for silk one way and cotton the other.

4. *Wearing test.* To test, press the two thumbs together on the cloth and pull the material straight out—first warp way and then filling way. If it tears or frays in either direction it shows the lack of strength. To test for strain in seams, see if warp or woof threads move easily or if soft and brittle. Also test by weaving a needle in and out of the double of the material as if making a tuck. Draw single cloth away on both sides of the needle. If row of holes show clearly along side of the needle, the material will not bear strain.

Suitability of Silk Material to Garments

Undergarments. Crepe de chine, Japanese silk, wash satin, pongee, tricolette, jersey silk.

Dresses. Taffeta, crepe de chine, satin, canton crepe, messaline, foulard, poplin, faille.

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SEWING PROCESSES

When a garment or article is to be made, the selection of material for color and design, wearing quality and use, is the first subject to be considered. Then come the factors which enter into the construction, preparation of material, cutting, fitting and finishing. Good tools are necessary to do this work accurately and by these are meant scissors with sharp, un-nicked blades, fine pins, pin cushion, needles, tape measure, thimble (to fit finger), sewing box, sewing machine, emery and thread.

STITCHES USED IN HAND SEWING

NOTE: The use of knots in hand sewing is permissible only in basting and gathering.

DIRECTIONS: Wrap the end of the thread around the forefinger of the right hand, having the end extending just beyond the point of crossing. Roll the thread between the thumb and forefinger until it is pushed off from the finger onto the thumb, then put the middle finger on the loop and pull the loop up with the middle finger and the thumb.

Temporary Stitches

BASTING: Not a permanent sewing. Used only to hold material together until finally sewed. Always use a knot. Fasten by taking two or three parallel stitches diagonally across the cloth above the end of the basting. When removing basting stitches, clip the thread at intervals to prevent tearing the material as they are withdrawn.

EVEN BASTING: (Figure 2). Make stitches of equal length on both sides of the cloth. The shorter the stitches the firmer the basting.

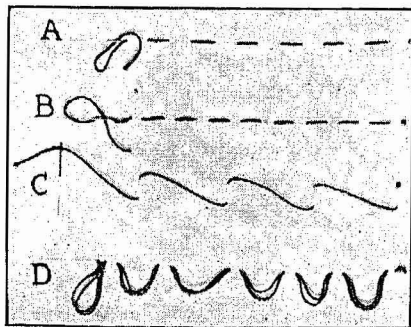


Figure 2. Temporary stitches. A. Even basting. B. Uneven basting. C. Side basting. D. Tailor's basting.

Use—Where there may be a strain on the seam before it is permanently sewed, as in waists or corset covers to be fitted and the upper part of skirts.

UNEVEN BASTING: (Figure 2). Make a shorter stitch on the under side than the upper.

Use—A guide for stitching or to hold two or more thicknesses of material together while stitching.

SIDE BASTING: (Figure 2). Make a diagonal stitch on the upper side of the material. A vertical stitch on the under side.

Use—To hold two thicknesses of cloth together, such as cuffs or collars that are to be made double.

TAILOR'S BASTING: (Figure 2). Tailor's basting is a very satisfactory way of marking materials. It requires more time than the other methods but is more lasting and may be done through two thicknesses. A long double thread is taken to make this tacking. Along the line which is to be marked take first a short, then a long stitch. The thread is not pulled through tightly, as in regular basting but each long stitch is loose enough to form a loop. After the basting is finished the two pieces of material are carefully pulled apart as far as the loops will allow, and the stitches which hold them together are cut between the two layers of material. If this is done correctly there will be stitches enough on each piece of material to indicate the line perfectly.

Permanent Stitches

RUNNING STITCH: (Figure 3). Use—Seaming, tucking, gathering, Directions—Make stitches and spaces even, very small, about one sixteenth of an inch long. Progress from right to left.

The length of the stitches depends somewhat upon the use to be made of them.

SEAMING: (Figure 3). Running stitch is the weakest form of stitch. It should be used in seams only when there will be practically no strain on them, and when the danger of the thread being caught and pulled out is slight as in the first sewing of a French seam.

Directions—The progress of work is from right to left. Start with a stitch from left to right, on the seam line, leaving the end of the thread to be caught by the seam. Two tiny stitches in the same place, from right to left, will make the end secure. Then sew along the seam line making small, even stitches.

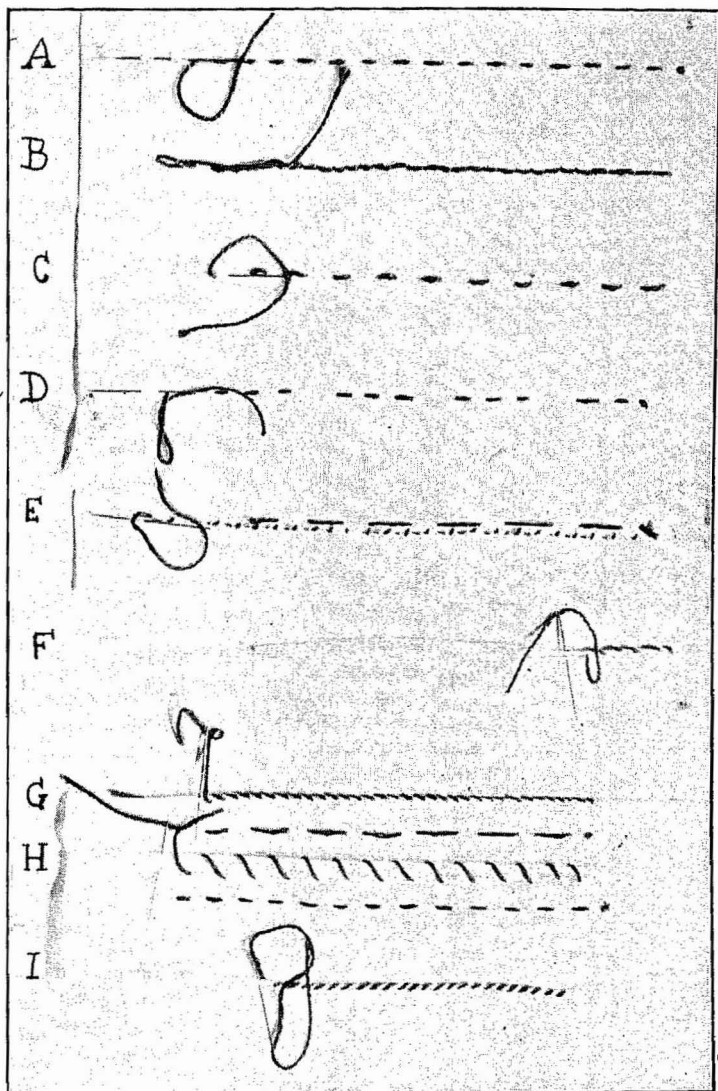


Figure 3. Permanent stitches—A. Running. B. Backstitch. C. Halfback stitch. D. Combination. E. Hemming. F. Damask or Napery. G. Overhanding. H. Overcasting. I. Rolling or whipping.

To Fasten—Push the needle through to the under side. Take two stitches, one on top of the other, through one thickness only. Bring the needle through the last stitch, to knot it.

TUCKING: (Figure 3). Make very small, even stitches. Start and finish as in seaming. The line to be followed may be marked by a crease or pin pricks, or a cardboard guide may be used.

GATHERING: (Figure 3). Even or uneven variety of running stitch.

Use—To put a piece of cloth into a shorter space.

Directions—Divide both the material to be gathered and that to which it is to be applied, into equal parts,—eighths, quarters, or halves and mark with pins or thread—a few small running stitches or a cross stitch. The gathering thread should be a few inches longer than the space to be filled. Use either single or double thread, knot end of the thread when finished, so the material may be drawn up in either direction. When gathering, do not remove the needle from the cloth until the end of the space to be gathered has been reached. Push the cloth off at the eye of the needle as the needle becomes filled. Much better results can be obtained when two rows of gatherings are inserted.

BACK-STITCH OR STITCHING: (Figure 3). Appearance—On the right side, a succession of stitches, the end of one stitch meeting the next one, resembling machine stitching. On the wrong side a succession of longer stitches, overlapping each other.

Use—Where there is need of strength in seams, bands, etc.

Directions—Baste the seam carefully. Stitching advances from right to left. Begin with a few small running stitches from left to right, at the right hand end of the work. Back of the last running stitch, the distance desired as length of stitch on the right side. Push the needle through to the wrong side, and forward twice the length of the stitch, then through to the right side again. Push the needle down at the end of the first stitch again. Push the needle down again at the end of the first stitch and up to the right side again. Repeat to the end of the seam. These back stitches will cover the running stitches used to start the sewing.

To Join Thread—Draw the needle to the wrong side of the cloth when making the last stitch with the old thread. Take two stitches under the last stitch, through only one thickness of the cloth, drawing

the needle through the last stitch to make a knot or fastening. Begin with new thread as at first, making the stitching appear unbroken on the upper side. Fasten as when joining thread.

HALF-BACK STITCHING: (Figure 3). Appearance—Stitches on the right side or upper side look like running stitching, a space between each stitch. On the under side, the stitches overlap half their length.

Use—When the need of strength is not so great as in stitching.

Directions—Make the same as back-stitch, passing the needle forward on the under side **THREE** times the length of the stitch on the upper side and putting the needle down half-way back to the preceding stitch. Join and fasten as in stitching.

COMBINATION STITCH: (Figure 3). Appearance—Combination of running and back-stitch.

Use—Not so strong as stitching or half-back stitching. Used where not so much strength is required as in seams with two stitchings, fells or French seams, and where both sides of the sewing will show and neatness of appearance is desired.

Directions—Begin the same as back-stitching. Take several running stitches, then one back stitch. This should be done at regular intervals.

HEMMING STITCH: (Figure 3). Use—To hold folded edges in place as hems, facings and fells.

Directions—Hold the hem over the first two fingers of the left hand with the edge of the hem toward the hand. Progress of work is toward the body. To start, run the needle from left to right through the fold which is to be sewed down, for about one-half inch, bringing the needle out on the edge of this fold at the point where the hemming is to begin. Leave a little end to be caught within the fold of the hem. The needle should slant a little toward the left. Take up two or three threads of the cloth and of the edge of the fold. Repeat. In fine work the stitches should be less than one-eighth of an inch apart.

To Join—The last stitch with the old thread should be taken through the cloth only. Leave a little end within the fold of the hem. Begin with the new thread, as at first, taking the first stitch where the last stitch with the old thread was made.

To Fasten—Take two or three stitches over each other, in the fold only, or a few tiny running stitches back through the fold. Cut the thread.

VERTICAL OR STRAIGHT HEMMING: Used to sew gathers to a band. This is done exactly like plain hemming, with this one difference: each new stitch is made by inserting the needle into the gathers directly under the point where the last stitch came through the folded edge of the band. This makes a vertical stitch on the side toward you.

OVERHANDING: (Figure 3). Appearance—Straight stitches on the right side, slanting on the wrong side.

Use—To make flat, strong and almost invisible seams. The edges sewed together must be finished as selvage, folds or lace.

Directions—Baste, placing exactly together the edges to be sewed. Then fold the work along the cushion of the first finger of the left hand, in either direction. Draw the needle through the upper thickness of cloth at the right hand end of the work and sew close to the edge. Point the needle directly toward you. Leave a short end of thread. Put the needle through the two thicknesses of cloth, passing through the first stitch, and pointing the needle toward the chest. Progress from right to left sewing over the end of the thread. Stitches must be very close together but not crowded and not deep. Care must be taken to hold the work straight where the sewing is being done. If allowed to curve the material which is toward you will pucker, as it will be slightly full. This fact is taken advantage of when sewing on lace by overhanding. It is desirable to have lace a little fuller than the edge to which it is sewed. Therefore, always hold lace toward you and permit the work to curve about the end of the first finger.

To Join—With the old thread take the last stitch through the under piece of material leaving only a little end. With the new thread take a stitch through the upper piece of material only, directly opposite the last stitch with the old thread. Leave a short end. Then take a stitch through both pieces of material, passing the needle through those last two stitches. Proceed as before, catching in the two ends of the thread.

To Finish—Turn the work about, and take a few stitches back over the work done. Cut the thread.

Caution—Avoid making stitch too deep and drawing it so tight that it will form a ridge.

OVERCASTING: (Figure 3). Appearance—Like overhanding, with the stitches deeper and further apart and looser.

Use—To keep raw edges of cloth from ravelling.

Directions—Have the edges to be overcast trimmed evenly and smoothly. A small knot may be used. If the two edges of a seam are to be overcast together conceal the knot between the two. If the seam is to be pressed open, conceal the knot on the under side. Holding the material along the first finger of the left hand, point the needle toward the left shoulder bringing it through from the under to the upper side. Work from right to left or left to right. The stitches are usually twice as far apart as deep, the size depending upon the character of material upon which they are being used. A material which is loosely woven and ravel easily requires deeper stitches than a finely woven material. Whatever the size, they should be even. When turning corners take two stitches in the same hole. When overcasting gored seams, work from the wide end of the gore to the narrow so as not to work against the threads. (In skirts this is from the bottom up.)

To finish—Take two small stitches on the under side. Knot the second stitch.

To Join—Fasten and begin as at first; beginning may be made without a knot.

SLIP STITCH OR BLIND STITCH: Used when an invisible sewing is desired to hold hems, facings, bindings, etc.

Directions—Start as a plain hem, leaving the end of the thread entirely within the fold. Where the sewing is to begin, take a tiny stitch under the edge of the fold to keep the thread from pulling out. Directly under this insert the needle into the cloth, taking up as little as possible as this stitch should not show on the right side. Direction should be parallel with the fold which is being fastened. Directly above this, run the needle into the fold, pushing it forward the desired length of stitch. Bring it out just under the edge of the fold. Again insert the needle into the cloth directly under the point where the thread comes out of the fold, taking as tiny a stitch as possible and into the fold, pushing forward again the desired length of stitch. Do not draw the thread too tight. Repeat to the end. This is not a strong stitch but is desirable for fine finishing.

ROLLING OR WHIPPING: (Figure 3). Plain hemming stitch used to secure a rolled hem or to sew lace to a rolled edge.

Directions—Roll the edge to be finished between the thumb and first finger of the left hand. Make the roll as tight and as small as

possible, rolling just deep enough to hold securely the raw edge. Work progresses toward you. Roll out a little way in advance of the sewing, an inch or two. If making a hem, or sewing on lace, do not use a knot. Insert the needle under the roll leaving an end to be caught into the roll and held with the stitches. Stitches are taken like hemming stitches, always under the roll, never through it. There should be no stitches showing on the right side. They must be very close together.

To Gather a Rolled Hem—Use a knot in the thread. Take the stitches a little farther apart. If taken too close together it will be impossible to draw up the gathering thread. Ruffles gathered in this way are overhanded to the edge to which they are to be fastened.

Decorative Stitches

Simple designs in embroidery make attractive finishes for cuffs, collars, belts, pockets, and holding hems in place.

RUNNING STITCH: (Figure 4). Use—To add decoration to a garment thereby increasing its beauty. Used also on linens.

Directions—This stitch is particularly attractive when made with woolen yarn or heavy embroidery rope floss. A design may be marked out, with stitches and spaces even; with stitches long and spaces short; with combination of lengths in stitches and spaces.

BLANKET STITCH: (Figure 4). Use—To finish the cut edges of blankets or flannel articles, to make bars at the ends of buttonholes, and loops to be used with hooks in place of eyes. In embroidery, to finish edges, (scallops, scrolls or straight edges), etc. When used in embroidery, it is usually erroneously called "button-hole" stitch.

Directions—Your work may progress in either direction, holding the edge being finished toward you. Beginning a little to the right of the left end of the work, run the needle to the end so as to conceal the end of the thread. Let the thread fall naturally to the right hand, or hold it in place with the left thumb. Put the needle into the material the desired distance from the edge. Push it out under the edge of the material and over the thread. Draw up the stitch so a thread lies along the edge. Repeat to the end of the work, progressing to the right. To join a thread, always bring the new thread through the last loop, that there may be no break in the finished edge. Variety of decorative effect may be obtained by varying the length of the stitches and the spaces between them.

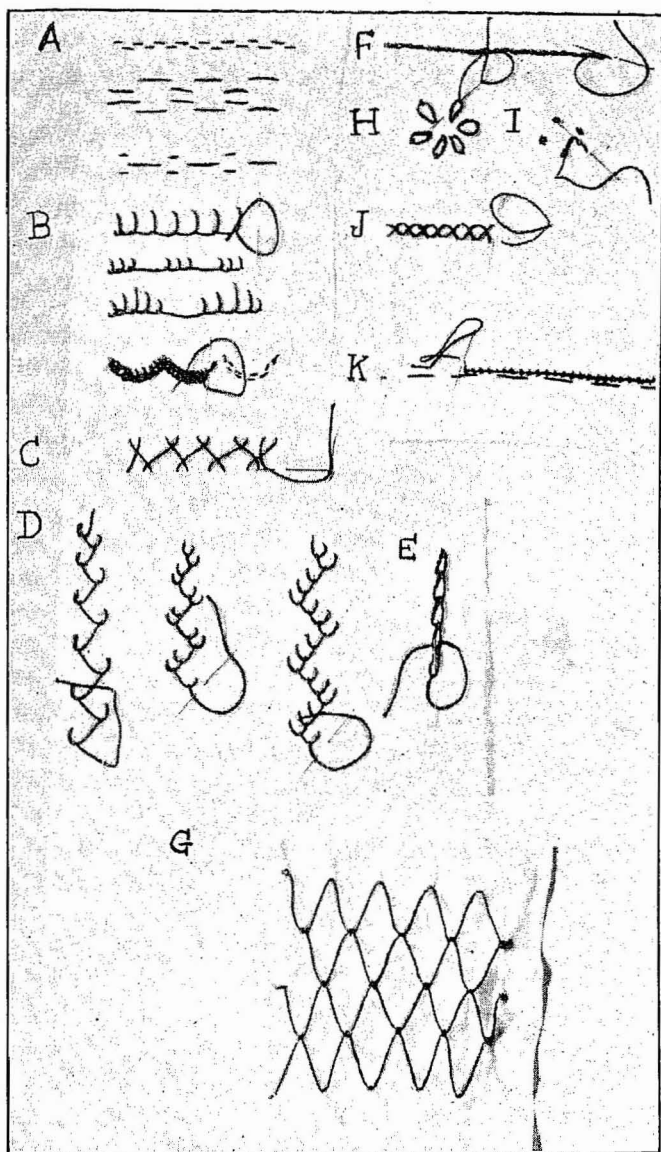


Figure 4. Decoration stitches—A. Running stitch. B. Blanket. C. Catch-stitch or herring bone stitch. D. Feather stitch—single, double, treble. E. Chain stitch. F. Outline stitch. G. Smocking. H. Lazy Daisy Stitch. I. French knots. J. Cross stitch. K. Hemstitching.

This stitch makes a pleasing finish for collars and cuffs, using a fairly heavy thread or yarn of contrasting color. When so used, a hem must be turned and run in first, then the blanket stitches are taken over the hem. When making scallops, the needle is put down in the upper edge of the scallop, and brought up on the lower edge of the scallop, with the thread falling under the point of the needle from the left. The stitches are taken as close together as possible, without crowding, following the outline exactly. They must be kept perpendicular to the edge or there will be difficulty in making the points of the scallops look well. Scallops should be strengthened by putting a row of running stitches in each outline. If it is desired that the work be raised, more threads may be run through the center of the scallops.

In making loops and bars, the blanket stitches are taken over threads laid for that purpose, and are placed as close together as possible.

CATCH-STITCH OR HERRING-BONE STITCH: (Figure 4). Uses—For decoration and for practical purposes to hold down unfinished edges, as the unturned edge of a hem in flannel or broadcloth or the edges of seams in flannel.

Directions—Work from left to right or away from the body between two imaginary lines. If an edge is being held down, that edge should serve as one of the lines. Bring the needle out at the left-hand end of the lower line. Take a short stitch from right to left on the upper line, sufficiently in advance of the first stitch on the lower line to give the desired slant to the stitches. Then take a stitch on the lower line at the proper distance to give the desired slant. Repeat to the end of the work.

FEATHER STITCH: (Figure 4). This is a variation of the blanket stitch. Each stitch is a blanket stitch worked to the right and then to the left of a line to be followed. The work is done toward the worker. The needle may be inserted slanting or straight toward you. The design varies with direction of the needle.

SINGLE FEATHER STITCH: (Figure 4). Bring the needle out at the upper end of the line to be followed and just to the left of it. Hold the thread with the left thumb, put the needle in one-eighth inch or less to the right of the place where the thread came out and take a stitch one-eighth inch or less in length, pointing the needle straight

toward you. Throw the thread to the left. Insert the needle to the left of the place where the thread last came out and directly under the last stitch on the left side. Take a stitch the same length and in same direction as preceding one. Continue, taking a stitch first to right and then to left, being very careful to keep all stitches and spaces the same size and the direction of the stitches the same.

DOUBLE FEATHER STITCH: (Figure 4). Take two stitches to the right, placing the second one a little lower than the first. Then take two stitches to the left, placing the second a little lower than the first. The two loops must make a straight line between the points where the change is made from right to left and from left to right.

TREBLE FEATHER STITCH. (Figure 4). Make three stitches before changing the direction.

The stitches in any feather stitching may be made parallel with the line being followed or at an angle to it. The direction taken must be the same throughout the work.

CHAIN STITCH AND VARIATIONS: (Figure 4). Use—To decorate hems and outline patterns, etc.

Directions—The work is done toward you, holding the line to be decorated over the first finger of the left hand. Bring the needle up at the upper end of the line. Let the thread hang naturally or hold in place with the left thumb. Put the needle back in the same hole it just came through, bring it through 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 of the preceding stitch, the other end held down by the next stitch. This stitch is made attractive by inserts of small running stitches.

OUTLINE STITCH: (Figure 4). Use—To outline designs, stitch is taken on the lines. Also used in combination with running stitch.

Directions—Work progresses away from the body. Draw needle to right side on the line, throw thread on one side, take back-stitch on the line with needle pointing towards worker. This will make longer threads on the surface than the short back-stitch beneath. Repeat. When the stitches are placed rather close together, the effect is prettier than when they are placed far apart. Care must be taken to throw the thread one way all of the time in order that the effect may be regular.

SMOCKING: (Figure 4). Use—To decorate dresses, smocks, waists or baby dresses.

Directions—To prepare the material for smocking, spread it out on a table. With a transfer pattern mark the straight lines of dots spaced at even distance apart. The rows of dots for the smocking are so arranged that they form perfect squares. Keep the lines of dots absolutely straight on the grain of the goods. When marking material for smocking by the transfer pattern, use as many rows of dots as the width of the material requires. Soft, loosely twisted embroidery silk is used on silk or woolen materials, French embroidery cotton on wash fabrics. On the rows of dots place lines of uneven basting, the short stitch at dot. When all of the rows are in, draw the threads up and fasten securely. The material will have the appearance of accordion plaits held in place. Take embroidery thread and catch the material at the first and second dots of the first row with two or three neatly made over-and-over stitches. Then, passing the thread under the material, bring the needle out at the second dot of the second row and do the same there. Continue across the row to the depth desired for the smocking. In the second row of the stitching the alternate dots of the second and the corresponding dots of the third rows are caught together. Always keep the diagonal threads taut but not enough to draw.

LAZY DAISY STITCH: (Sometimes called Loop-stitch). (Figure 4). Used with French knots and often with feather stitching.

Directions—The stitch is made by drawing the needle to the right side forming a small loop of thread as in a chain stitch, and replacing needle on under side of loop to keep loop in place.

FRENCH KNOTS: (Figure 4). Use—To give ornamentation for the center of flowers, and for filling in a space enclosed by outline or other stitches.

Directions—Bring thread up through cloth in the place knot is to appear. Take a slight back stitch and with the needle protruding from the cloth, wind thread around needle two or three times. Draw needle through, while holding coils of thread close with left thumb. Pass needle without cutting thread to the next place where knot is to be made.

CROSS STITCH: (Figure 4). Use—To mark linens and underwear and for fancy work.

Directions—The stitch consists of two slanting lines crossed. On the wrong side the stitches may be either horizontal or vertical. Bring

the needle up to the right side at lower left corner of the square that the stitch would form if enclosed, pass thread slanting across the warp threads and take stitch pointing needle towards the worker and on line with the work. When thread is drawn through, a slanting line of half the cross is made. This can be repeated across a whole row, finishing the crosses by returning from right to left with the same vertical stitches, or the cross may be completed at once. Care must be taken to have all the stitches cross the same way.

CROSS-STITCH ON ROLLED HEM: Used for finishing handkerchiefs, ruffles, or dainty blouses, baby clothes, etc.

The raw edge is rolled as directed under rolling and whipping. In this case it is desirable to have the stitch show equally on both sides of the work, so instead of slipping the needle under the roll, put it through the cloth just below the roll (never stitch into the roll). Sew over and over the roll, taking stitches one-eighth or three-sixteenths of an inch apart, always putting the needle from the upper side through to the under. When the roll is sewed in once, turn the work around, and go back over it, taking stitches in exactly the same places. The stitches will cross on the very edge. When done with colored thread on white, the effect is very pleasing.

HEMSTITCHING: (Figure 4). This is an openwork finish for the top of a hem which is made on the straight of the material.

Decide the width of hem to be made. Measure from the edge of the material twice this amount, plus one-eighth inch for the first hold of the hem. At this point draw the first thread from the material. Draw other threads above this one. The number of threads to be drawn or the width of the open work to be made will be determined by the weight of material, the width of hem and size of garment or article which is being made. When the threads are all drawn, fold and baste the hem to place, being careful to have the hem lie exactly along the lower edge of the drawn space. Hold the wrong side of the hem toward you, the line of open space along the cushion of the first finger of the left hand. Pass the needle from right to left behind a group of four or five threads in the drawn space, and pull the thread through. Again pass the needle behind the same group of threads and through the folded edge of the hem, draw the thread tight, thus holding the group of threads close together. Repeat with each new group of threads.

CONSTRUCTIVE PROCESSES

Seams

PLAIN SEAM: (Figure 5). Two edges with one row of hand or machine stitching, three-eighths to one inch, form the edges which are

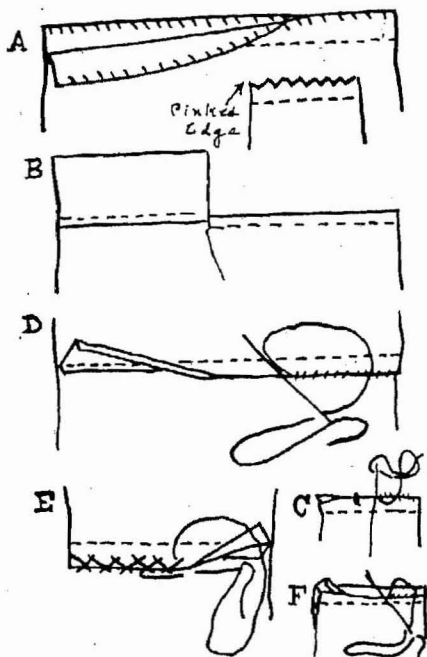


Figure 5. Seams—A. Plain. B. French. C. False French seam. D. Flat fell. E. Flannel fell. F. French fell.

neatly trimmed and finished with overcasting, binding or pinking, depending on the place where the seam is used and the material of which it is made.

FRENCH SEAM: Use—Underwear, lingerie, dresses, blouses, etc., because of its strength and neatness.

DIRECTIONS:—Put together as for a plain seam, but with the seam to the right side of the garment. The wrong sides of the cloth will be together. Sew one-eighth inch outside the seam line (toward the edges of material). Trim to a little less than one-eighth inch from the sewing. Make this edge very straight. Crease the seam flat. Turn the work so the two right sides are together and the line of the first sewing is exactly on

the edge. Baste a seam which encloses the raw edges of the first seam and stitch. The width of the finished seam varies with the material.

FALSE FRENCH SEAM: (Figure 5). Trim both edges of the plain seam even, one-eighth inch wider than the width desired when finished. Turn both edges in toward each other, one-eighth of an inch. The two edges may be held together by overcasting, running or machine stitching.

FLAT FELL: (Figure 5). A flat seam with raw edges hidden.

Use:—In underwear, because of strength, neatness, smoothness and ease in laundering. Also in tailored garments, or shirtwaists, mid-

dy blouses, men's shirts and tailored skirts.

Directions—Decide whether the seam is to be made on the right side or the wrong side of the garment. Usually in underwear flat fell seams are made on the wrong side; in tailored garments, they are made on the right side.

Make a plain seam on the side where the seam is to be finished. Stitch on the line, and with the upper side of the stitch, whether by hand or machine, on the right side of the seam. Trim the under edge of the seam to form one-eighth to one-fourth of an inch from the stitching, and the upper or right side from one-eighth to one-fourth inch wider, depending on the material. Turn the wider edge over the narrower one, turn the seam down so both the seam and the garment lie perfectly flat against each other. Baste in place. Either hem or stitch the edge of the fold to the cloth.

FLANNEL FELL: (Figure 5). Make a plain seam on the wrong side. Trim seam to width desired when finished (one-fourth to three-eighths of an inch). Then trim one edge (to be the under one) a bit narrower. Baste the seam flat, without turning the edge under. Catch-stitch the edge to the garment. (See decorative stitches).

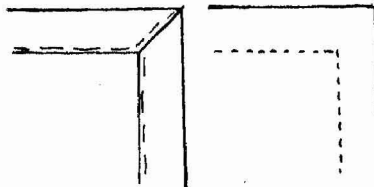
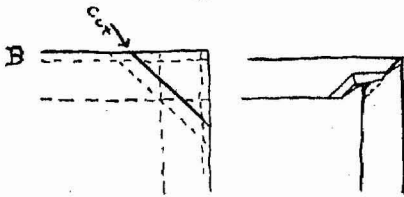
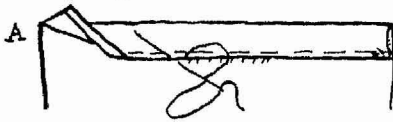
Sometimes a French seam finish is desired, when it is advantageous to sew up a garment on the seam line, with the seam to the wrong side. This may be obtained with a standing fell or an overhand fell.

FRENCH FELL: (Figure 5). Trim one side of the plain seam to the width desired when finished. Trim the other side to nearly three times this width. Turn the wide side as for a hem, letting the folded edge come just to the stitching. The stitching must not be covered. Hem or stitch this folded edge to the seam.

Hems

PLAIN HEM: (Figure 6). A hem is a finish for the edge of material obtained by folding the edge twice, then sewing it down. The width of the fold varies. The first turn for a narrow hem may be one-eighth of an inch or less; for wider hems usually one-quarter inch, rarely more. The width of very narrow hems may be gauged by the eye. Wider ones must be measured. A cardboard guide, such as is used to measure the width of tucks, may be used. The hem, unless very narrow, must be basted carefully in place before beginning the permanent sewing. Materials which do not crease, as flannels and other wools, must be basted at the first turn as well as the second.

DAMASK OR NAPERY HEM: (Figure 3-F). Turn a very narrow hem to the wrong side of the damask. Then fold the hem back to the right side. Overhand the two folds. When finished open out and press flat.



WRONG SIDE
Basted

Right Side
Finished

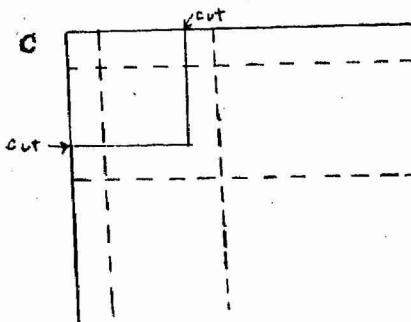


Figure 6. Hems. A. Plain hem. B. Mitered corners. C. Square cut corners.

FRENCH HEM: (Figure 3-F). Turn a very narrow hem to the right side of the work, then fold the hem back to the wrong side. Method of folding in hem is same as for napery hem except in this case the hem is turned to the right side in place of the wrong. Overhand the two folds holding the right side toward you. This little hem is left folded to the wrong side. Lace may be sewed on at the same time the hem is overhanded. The lace should be held toward you the right side of the lace against the right.

MITERED CORNERS: (Figure 6). When putting in a wide hem the corner is mitered to avoid bulkiness. Turn the hem and crease, being especially careful to crease well at each side of the corner to be mitered. Open the hem, then fold the corner over, making the fold pass through the point where the creases cross. Cut off the corner, leaving a small seam allowance.

Baste the hems in place, turning under the seam allowance of one hem at the corner and lapping this over the other. This makes a straight folded edge from the corner at the outer edge of the hem to the corner made by meeting of the folded edges to be hemmed. Hem

the miter by hand without catching through the right side.

SQUARE CUT CORNERS: (Figure 6). Use—Napkins, curtains.

Directions—Fold a hem on both sides of square. Then unfold and cut along the lower horizontal crease to within one-fourth inch of vertical crease; from there cut vertically upward to edge of cloth. Refold first one side then the other.

BIASES: (Figure 7). Material cut on the bias is used for binding, facing, piping, folds for trimming, etc. It stretches in such a way that it can be fitted into spaces and on surfaces where straight material would wrinkle, pucker, or be clumsy and unsightly. True bias should always be used, as that is the most adaptable form.

To Cut True Bias Strips—Fold the material at one end, so the lengthwise threads are parallel with the crosswise threads. The sel-

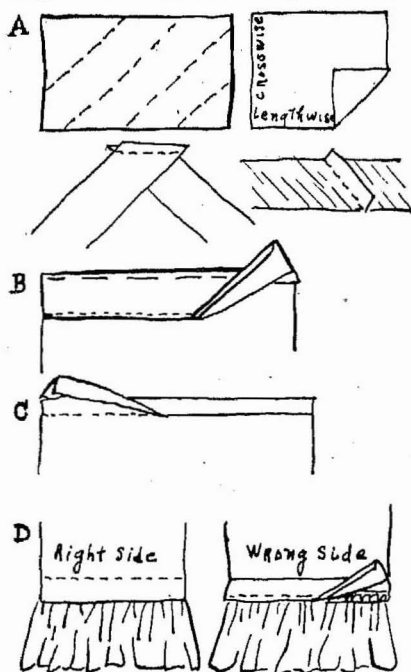


Figure 7. Finishings. A. Bias B. Facings. C. Binding. D. Ruffles or flounces set under a tuck.

vage, where it turns, will form a right angle. Crease or otherwise mark this fold, then cut through it. This gives a true bias edge. Measure at right angles from this bias edge the width desired for the bias strip. Do this at several places. These points may be connected with a chalk or pencil line, made with a ruler, cut through this line. If several bias strips are needed, mark them all before cutting.

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

To Join Bias Strips—The seams in bias strips always follow the threads of the material. (Be on the straight of the material.) If made across the strips, they will stretch, be clumsy,

and quite conspicuous. Place the two strips, right sides and diagonal

ends together. One strip will extend out one way, the other the other way. Let one end slip by the other a little. Sew or stitch from the angle formed where the edge of one strip crosses the edge of the other, to the corresponding point on the other side. If this is done, the edges of the strips will be on a line when they are opened out.

FACING: (Figure 7). Use—To finish curved edges where it would be difficult to make a hem; in place of a hem when material is not long enough to allow for hem; as in trimming, etc.

Directions—Use strips of material cut on a true bias. Lay the right side of the bias strip to the right side of the garment, placing the edges together evenly. Baste a narrow seam, then stitch it. Remove bastings, turn facing to the wrong side of the garment, bringing the seam just to the under side, so there will be no danger of its showing from the right side. Baste at this sewed edge to hold firmly in place while the other edge is being turned in, basted and sewed. The effect from the right side is that of a hem.

FITTED FACING: Used to finish neck, sleeves, hems and shaped edges.

Directions—Before cutting the material for facing, the part to be finished must be cut out or trimmed as completed line is to be. Then lay paper for cutting design on garment. Cut outer edge of paper pattern shape desired. Lay paper pattern on cloth and cut. A garment may be finished by applying the facing to either the right or wrong side.

To Apply—Pin the right side of facing to the wrong side of garment, edges even. Baste and sew in place. Then turn facing to right side of garment so the stitching line is at the edge of the fold. Baste close to edge to hold in place. Then turn other raw edge under one-fourth inch and baste flat to garment.

BINDING: (Figure 7). Use—To finish seams; as finish and decoration for edges of ruffles or flounces, cuffs, collars, aprons, etc.

Directions—The binding must be perfectly even in width and must be the same width on both sides of the material.

Cut the bias strips four times the width desired when finished, unless the binding is to be more than one-half inch wide. In that case, cut the strips twice the desired width, plus one-half inch for the turning of the two edges. Lay the right side of the strip on the right side of the material, with the edges exactly together (if to be one-half inch or less in width). Baste, then sew a seam the width of

the finished binding. Turn the bias strip over the edge of the material. Be sure to make the fold of the binding come exactly at the edge of the material. Be very careful to turn it straight over so that it may not twist. Then turn in the edge so the binding on the wrong side comes just to the stitching. Slip-stitch the fold to the line of sewing. Done in this way, no sewing will show on either side of the work.

Sometimes bindings are stitched by machine. Then the wrong side is basted to place, the edge just covering the first stitching. The second stitching is done from the right side, and should just take in both edges of the binding.

Using Folded Bias Binding—Binding may be fastened with one stitching. To apply, carefully crease fold a little to one side of center, placing narrower side on right side of garment to make sure stitching will catch under side.

RUFFLE OR FLOUNCE SET ON UNDER A TUCK: (Figure 7). Ruffles may be attached to petticoats and drawers by this method.

To prepare the garment for the ruffle—Allow in the length of the garment enough for the tuck and for turning in the edge. The width of tuck will be determined by the character of the material and of the garment. We will figure on a three-eighths inch tuck. For this, allow three-quarters of an inch (twice the width of the tuck) plus one-quarter inch to turn in. For the edge of the tuck, measure up from the edge of the garment the amount allowed for turning in, plus twice the width of the tuck—in this case, one inch. Fold on this line, and stitch three-eighths in. Turn up the raw edge one-quarter inch, to the right side (under the tuck) and baste. When the tuck is pressed down, the edge of the tuck and the under-basted edge should come exactly together. The ruffle is set between these two edges. Divide the ruffle into fourths or eighths, and the garment into corresponding sections. Gather the ruffle. (If two gathering threads are put in one one-quarter inch below the other, it is possible to make a prettier adjustment of fullness. Sewing should be done between the two threads. The lower one is removed when the work is finished). Put an eighth of the ruffle to an eighth of the garment, basting it to the tuck only. When the ruffle has been carefully and satisfactorily basted to the tuck, turn the garment to the wrong side and baste down the other edge. The top of the ruffle will be enclosed between the tuck and the material under it. Stitch along the lower edge of the

tuck. Two rows of stitching will show on on the right side, and but one on the wrong side.

Plackets

There are many different methods possible for the finishing of plackets, the style depending upon the skirt. A placket should always be inconspicuous, and smooth. It should be stayed just enough to support the fasteners.

Two commonly used plackets will be described here.

CONTINUOUS PLACKET: (Figure 8). Used on undergarments, lingerie, silk dresses.

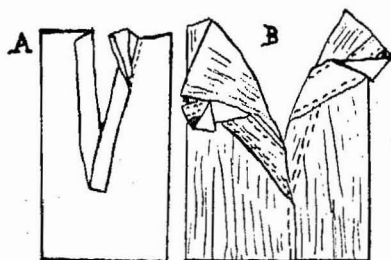


Figure 8. Plackets. A. Continuous.
B. Placket under a tuck opening.

Directions—Cut a lengthwise strip of the material twice the length of the placket, and twice the desired width, plus allowance for two seams. Place the right side of this strip to the right side of the garment, the edges together. Holding the garment toward you, baste a seam one-fourth inch in width, to within one-fourth inch of the end of the placket. Hold the strip straight and stitch by hand around the lower end of the placket, easing the fullness into the strip. Continue stitching one-fourth inch above the end of the opening, then baste the remainder of the seam as on the first side. Stitch by machine, the garment on top so as not to lay the fullness in plaits. If this placket is being made at one end of a seam, this first sewing must be on a line with the skirt seam. Turn in the other edge of the strip one-eighth inch. Place that fold over the first stitching so as to enclose the raw edges, baste to place, and stitch. The upper side of this extension is turned back, and caught into the belt. The underside is left to extend out and make a lap at the opening.

PLACKET IN A TUCK OPENING: (Figure 8). Before stitching the tuck in place, mark the edge on which it turns with a colored thread; then open the tuck, turn to wrong side, and place a piece of linen tape, five-eighths inch wide, one-half to three quarter inch to the left of the thread, marking the edge of the tuck; baste and stitch on both edges. Fold tuck again and baste to place; stitch same width as below

the placket opening. Sew hooks or snap fasteners on one inch apart. The extension should have a piece of five-eighths inch linen tape basted far enough to the right of the marking of placket, so that when the eyes are placed the skirt will hook together properly. Baste tape to place and stitch both edges. Sew eyes on to meet hooks. The placket must close smoothly and evenly. Press before stitching. If the tuck should be on the bias, it must also be faced with a straight strip of lawn, nainsook or batiste.

Sleeves

BASTING THE SLEEVES The sleeve should be placed flat on the table and the seam markings should be brought together and pinned, beginning at the bottom of the sleeve. If the sleeve does not lie flat after the markings are matched, a readjustment is necessary before any basting is done. It is better to have the sleeve smooth without twisting, than to have the markings match. Seams in the sleeve should correspond with those used in the waist.

If there is any fullness whatever in the top of the sleeves two rows of gatherings should be put in. The first row of gatherings should be one-fourth inch in from the edge and between the markings. The second row should be one-eighth inch in from the first row. It is used to hold the gathers in place.

For placing the sleeve in the waist this rule is often observed: using a point one inch back of the shoulder seam, the armseye of the waist should be folded in half and the opposite point marked. This point indicates the location where inside seam of sleeve is to come. The sleeve is then ready to be pinned in and basted. In doing this the waist should be held with the wrong side and the under arm toward the worker. The sleeve should be drawn up into the armseye and the seam pinned to the point indicated. The under part of the sleeve should be pinned to the under arm of the waist, matching the armseye markings of the waist and sleeve. With the waist still toward the worker the gatherings should be drawn up around the upper part of the sleeve until the sleeve fits the armseye. With the waist still in the same position but with the shoulder turned back so that the upper part of the sleeve can be more easily seen, the gathers should be adjusted. The center of the sleeve and the largest amount of the fullness should fall over the shoulder bone, which in most cases is from three-fourths to one and one-half inches forward of the shoulder seam. Any

remaining fullness should be eased off to the front and back to the points which indicate the end of the gathering.

FITTING THE SLEEVE: The sleeve should be put on right side out, with the armseye seam turned back on the shoulder. The fit of the sleeve depends somewhat on the position of the line of the armseye at the shoulder. If a sleeve is too long or too short care must be taken in changing to make the alteration so that the proper position of the elbow is kept.

ARMSEYE SEAM: The seam may be plain, and then finished with a bias binding. This is done by basting the bias strip in with the sleeves, holding the material toward the waist. Stitch together, and fold the binding inside the sleeve and hem it down to the stitching of the sleeve. Some prefer to set the sleeve in with a French seam. If this method is used, care must be taken to keep a good line on the arm hole.

In tailored waists, middy blouses and smocks, the sleeve is often set in with the fell seam. The seam edges of the waist turn over to inclose the sleeve seam.

Skirt Waist-line Finishes

PETTICOATS: (Figure 9). With a band. Cut a lengthwise strip of material. The width depends on the width of the band desired.

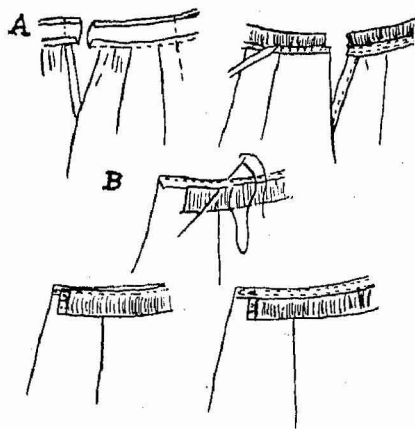


Figure 9. Skirt waistline finishes. A. Petticoats. B. Dress skirts.

Twice the width of the band finished plus allowance for two seams will be needed. The length should be three or four inches longer than the waist measure. Mark the center of this strip. Each side of this center mark, measure one-half waist length and mark. Place the right side of the band to the wrong side of the skirt, at the waist line, with the center mark at the center front, and one edge of the band at the edge of the skirt. Then pin the marks indicating the extent of the waist measure, to the center back of the skirt one on each side. On the right hand side of the skirt opening, the

indicating the extent of the waist measure, to the center back of the skirt one on each side. On the right hand side of the skirt opening, the

placket should be turned back, the fold making the center line there. On left hand side, the placket should be allowed to extend beyond the center, thus making a lap. Adjust the skirt to the belt all the way round. Fullness may be gathered or laid in plaits, or the skirt may be fitted so there is no fullness. Baste band to the skirt firmly, making a seam from one-quarter to one-half inch deep, depending on the character of the material used. Turn the band up against the basting. If there is any unnecessary length at either end of the band, cut it off. Leave enough to turn in. Turn in also the seam allowance on the other side of the band. Bring the folded edge to the right side, just covering the first basting. Baste to place. The edges of the band on the right and wrong side should be exactly over each other. Stitch the band all the way round on the very edge.

A wash petticoat should be fastened with a button and buttonhole. One which is not to be washed (as silk) may be fastened with hook and eye. There should be one or two fasteners on the placket. Buttons or snaps may be used there.

Sometimes skirts which are fitted (no fullness or plaits in the back) are finished at the waist with bias facing from one-half to three-quarters inch wide. This is not so strong a finish as the straight band.

Dress Skirts

NORMAL WAIST LINE: 1. A band such as described for a petticoat may be used. An extra piece of material such as cambric, should be used inside the band to give it firmness.

2. Use twilled belting from one to two inches wide. **ALWAYS** shrink any belting to be used in wash skirts. Cut belting two inches longer than the waist measure. Turn in one inch at each end. Catch stitch or blanket stitch the ends in place. Sew on hooks and eyes—the bottom ones temporarily. On the figure adjust the skirt to the belt. Cover the raw edge of the skirt with a piece of tape. Stitch this tape top and bottom. The bottom hook and eye have to be removed for this stitching. The upper side of the lap of the skirt will extend beyond the end of the belt. The finishing tape should continue to the end of this, then turn back to cover the under side of the extension. The end of the extension should snap to the belt.

An extra belt has to be worn with skirts finished as described above.

RAISED WAIST LINE: The width of the belt used is determined by the figure of the person who is to wear it. A person having a long waist can wear a wider inside belt than can a shortwaisted person. A stiff or boned belting should be used. Belting to be used in wash skirts should ALWAYS be shrunken.

1. **A Skirt Without Fullness at the Belt**—In fitting find the exact line to which the top edge of the belt must come, and mark with a basting thread. Trim skirt one-half inch above this line. Place a bias piece of cambric at this edge to keep it firm when turning and stitching. Turn on the line marked, baste, then stitch about one-eighth inch from the edge. Great care must be taken not to stretch the skirt waist line while working on it. Baste the belt, which has been finished, inside the skirt, the top edge to the stitching; then hem skirt and belt together through the stitching.

2. **Prepare the Top Edge for Stitching**, (as in 1). Before stitching, baste the skirt to the belt, allowing the edge of the skirt to extend just a bit above the edge of the belt. Stitch far enough down to catch both skirt and belt in one stitching. In this case the top hook and eye cannot be sewed on until the waist line is finished. Always let the UPPER side of the lap extend beyond the end of the belt. The extension should be held in place with a snap fastener, or hook and straight eye.

3. **Either Plain or Gathered Skirt.** Mark the line on which the skirt is to be turned. If a gathered skirt, run in two gathering threads, one on each side of the marked line, one-quarter inch from it. Place the belt to the wrong side of the skirt, with the upper edge on the marked line. Baste, after fullness has been properly adjusted. Turn the edge of the skirt over the edge of the belt, and baste again. Stitch on the right side about one-eighth inch from the edge. Cover the raw edge of material with tape—linen, cotton or bias lawn—or Prussian binding. This covering may have one edge hemmed into the stitching and the other stitched through the belt only, or it may be placed far enough down to make it possible to stitch both edges through the belt only. The lap which extends beyond the end of the belt should be finished with this same tape.

A pleated skirt may be finished in any of the above three ways. A stay piece may not be needed.

STRAIGHTENING THE BOTTOM OF A SKIRT: (Figure 10). If some-

one can do it for you, stand on a pedestal and have the marker put in a row of pins or chalk line, where edge of hem is to come. This line can be found by using a yard stick, placing the yard stick perpendicular to the floor at all times.

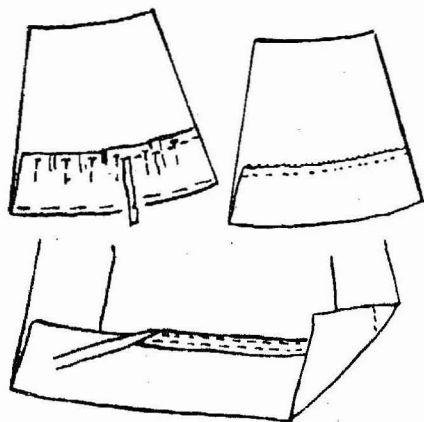


Figure 10. Straightening the bottom of a skirt.

make the skirt the desired length.

When an assistant is not available, put the skirt on, and place yard stick perpendicular to the floor and close to the body. Mark the skirt at the top of the yard stick. Turn around, keeping the yard stick at the same distance from the body and mark points around the skirt at the top of the yard stick. This gives a line parallel to the floor. Spread the skirt out on a table and measure down at right angles to this line, the correct number of inches to

Collar and Cuffs

DOUBLE COLLAR: The two thicknesses of a collar may be held together on the outside edge by a binding, or by a tiny seam on the inside.

To Attach to Waist or Blouse—Pin the neck line of the upper piece of the collar to the neck line of the blouse, with the right side of the collar to the wrong side of the blouse. Begin by pinning the center of the collar neckline to the center of the blouse neck line. Pin each way to the ends. Baste, then stitch. It may be necessary to clip the seam at the curve to let it spring. Turn in the edge of the under part of the collar the seam's width, and baste to the stitching, so the raw edges are enclosed within the collar. Hem by hand, being careful to finish the ends very neatly. Double collar may be joined to neckline by a facing such as described under single collar.

SINGLE COLLAR: Pin the neck line of the collar to the neck line of the blouse, with the wrong side of the collar to the right side of the blouse. Begin by pinning the center of the collar neck line to the center of the blouse neck line. Pin each way to the ends, then baste.

This neck line is to be finished with a bias facing. The facing material may be basted on before the collar is stitched to the blouse. Place the right side of the facing to the right side of the collar, with the edge at the edge of the neck seam. Baste in the same place. Stitch all together. Trim the seam even and narrow. Turn the seam and the facing down against the blouse. Then turn in the edge of the facing, making it as narrow as the material allows, baste flat to the blouse and stitch, or hem by hand.

Follow the same method in sewing on double and single cuffs.

Fasteners

BUTTONHOLES: (Figure 11). Use—A buttonhole is a finished opening in a garment used as a means of fastening or for decoration.

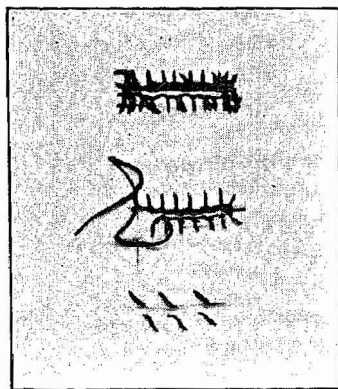


Figure 11. Fasteners. Buttonholes.

Directions—The position of the buttonhole must be marked on the garment with a pin or basting, considering the spacing between the button and the distance of each from the edge of hem or band. The size should be one-sixteenth of an inch longer than the diameter of the button which is to pass through it. If the button is very thick, a greater distance should be made. Since buttonholes are always cut through two or more thicknesses of material, they must first be overcast in order to prevent their fraying while being worked. Hold the slit along the cushion of the first finger of the left hand, with the inside end at the right, if the button hole is at right angles to an edge. Hold it loosely, so as not to stretch the opening. At the right hand end insert the needle between the two layers of cloth and bring it out exactly below the end of the slit. The distance from the edge will be governed by the size of the buttonhole and the kind of material. From three to five overcasting stitches should be made on each side of the buttonhole, according to its length.

Hold the raw edge to be covered along the upper part of the cushion of the left forefinger, with the hand parallel to the body. Point the needle directly toward the body in taking the stitch; brace

the needle firmly with the left thumb and forefinger. With the right hand take the threads at the eye of the needle, carry them around and under the point of the needle in the direction in which you are working; drop the loop at the back of the cloth. Push the needle through and draw up the thread in line with the stitch and on a plane with the cloth.

The stitch may be made from right to left or left to right. For the right-handed person it should be made from right to left.

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

Finish with a double stitch on the wrong side.

Buttonholes may be classified as to finish—as fan and barred

The fan end is made with three or five radiating buttonhole stitches (or blanket stitches), preferably the buttonhole stitches.

The barred end is made by covering the strands placed perpendicular to and at the end of the gash, with the buttonhole stitches. Usually eight in number are required. They are placed with the purl toward the buttonhole.

Suggestions—Overcast buttonhole on wrong side that the stitches may be deeper on the wrong side.

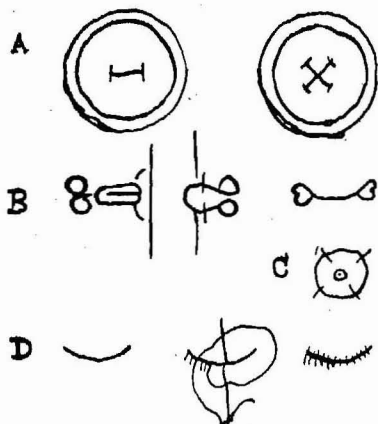


Figure 12. Fasteners. A. Buttonholes. B. Hooks and eyes. C. Clasps. D. Thread loop eye.

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

BUTTONS: (Figure 12). Use thread one size coarser than that used for buttonhole, doubled and knotted. Always cut the thread when sewing is finished. Never break it. Breaking

stretches it, so the break is made back in the sewing. The end is likely to work loose.

Buttons Having Two Holes—Take a tiny stitch on the right side of the garment just where the button is to rest. The button will conceal the knot. Push the needle up through one hole in the button then down through the other, passing through to the wrong side of the garment. Make the stitch parallel with the buttonhole which is to be used with the button, that the stitch may not spread it. Place a pin under the one stitch which is holding the button in place. Continue sewing, up through one hole and down through the other—over the pin—until enough stitches have been placed to hold the button securely. Remove the pin. It has kept the stitches loose so the button may be drawn from the cloth just a



bit, making a space for the button hole to rest in. Bring the needle through to the right side between the button and the cloth, near the stitches. Wind the thread about the stitches so the thread will not wear out and loosen the button. Push the needle through to the wrong side, take three or four tiny stitches close to the other stitches, looping the last one or two to secure it. Then CUT the thread, never break it. This will lessen the danger of the thread loosening

Buttons Having Four Holes

Position of hands, needle and thread in —Use the same method as in making the button-hole stitch. sewing two-holed buttons.

There will be two sets of stitches showing on the button. These may be made to cross each other or to lie parallel.

HOOKS AND EYES: (Figure 12). Use heavy thread—A knot may be used. Whenever possible, stitches should not show in the right side of the work.

Hook—Working from right to left, sew over and over the circles

on one end of the hook, placing stitches close together to cover the wire. When both circles have been covered, pass the needle between the two thicknesses of cloth to which the hook is being sewed bringing it out at the left of the bill end of the hook, and just beyond the end. Opposite this point on the right side of the bill, put the needle into the cloth and bring it out in the same place on the left side. The thread should draw into the very end of the hook. Repeat several times. Stitches so placed are not so quickly worn out as are stitches made over the under part of the hook where the eye rubs over them hard every time it is put into the hook.

To Fasten—Take two or three tiny stitches beside the bent end of the hook. Then pass the needle back to the end of the hook first sewed. Take two or three more tiny stitches, looping the last one. CUT the thread, NEVER BREAK it. A hook thus sewed will stay on a long time. If very neat, secure work is wanted, use a buttonhole or blanket stitch when sewing around the wire circles.

Eyes, Bent or Straight—Follow directions for sewing on hooks. Be careful to sew all the way around the wire circles. Note directions for fastening the thread.

SNAP FASTENERS: (Figure 12). Sew with several stitches into the holes and over the edges of the fastener. Pass from one hole to the next THROUGH THE CLOTH. Fasten with two or three stitches in the cloth, looping the last stitch, cut the thread. Never break it. Do not let any of the stitches show on the right side of the garment. Snap fasteners should make an invisible fastening.

The part which has the little knob on it usually has a flatter back than the other piece. If this flatter piece is sewed to the upper side of the garment opening, a worn spot will not so soon appear before the fasteners are pressed together.

LOOPS: (Figure 12). Occasionally there are places where wire eyes of any sort are not desirable, then a thread loop may be made. Use a strong thread, with a knot, placing the loop just as you would a straight wire eye if it were being used. Bring the needle through the cloth from the under side to the upper at the left end of the space. One-fourth inch to the right put the needle down again, bringing it up through the same spot at the left. Place about four threads across

this space. Once at each end take a tiny stitch at right angles to the threads being placed instead of passing the needle under the space. This will prevent the material from drawing up while working or when using the loop. When the desired number of threads have been placed, the needle and thread should be at the left end of the work. Work to the right, cover the threads with blanket stitches, pushing them close together. Inserting the needle under the thread with the eye end first will help to avoid catching into the material. The purl of the stitch should come toward the worker. When the strands have been completely covered with blanket stitches pushed close together, at the right hand end of the loop, close to the last purl, push the needle through to the wrong side of the work, take two or three tiny stitches, loop the last stitch then cut the thread.

BOUND BUTTONHOLES: (Figure 13). Mark with a thread the place where the buttonhole is to be cut. Cut the material which is to be

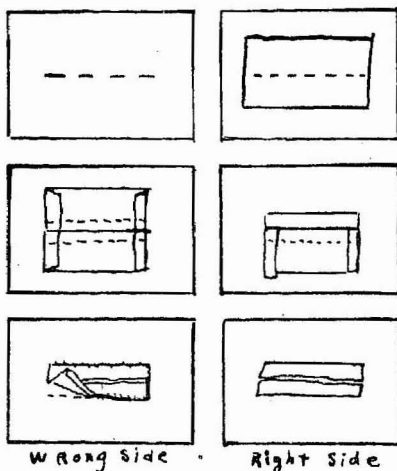


Figure 13. Bound buttonholes.

used for binding one-half inch longer than the finished buttonhole and about two and one-half inches wide. This piece may be either bias or straight, depending on the effect desired. Lay the center of this strip over the buttonhole line, and baste there, letting the ends extend one-fourth inch beyond each end of the buttonhole line. Turn back the quarter inch. Stitch about three sixteenths inch each side of the buttonhole line the exact buttonhole length. Then cut on the buttonhole line through the binding and the garment. Turn the binding through to the wrong side.

Do not turn the seam of the buttonhole. Turn in edges of the binding and hem in the stitching. These stitches must not show on the right side. Slip stitch across the ends of the binding to keep the turned-in edge from coming out. On the wrong side the ends of the binding must be firmly sewed together. Otherwise the buttonhole will tear out as there is nothing to protect the ends.

Set-In Pockets

With colored thread mark the place indicated on the pattern for the pocket slit. (Figure 14). Cut material for the pocket one inch wider than the marking and ten inches long.

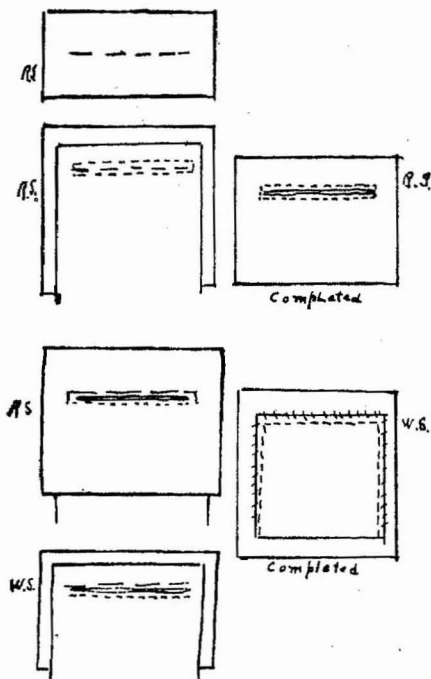


Figure 14. Set in pockets.

than the marking and ten inches long. Lay the right side of the pocket to the right side of the blouse, the upper end of the pocket one inch above the colored basting. Mark the line for the slit through the pocket material with running stitches. Place a row of stitching all around the marking for the slit, one-sixteenth inch from the running stitches. Cut the slit and turn the pocket through to the wrong side of the blouse. Baste closely all around the edges of the slit, letting the material of the pocket slip up enough to form a narrow piping. Stitch close to the lower edge of the slit. Fold the pocket in half with all edges even and baste together. Stitch seams on the sides of the pocket. On the

right side of the blouse, stitch along the ends and the upper edge of the slit. Overcast all raw edges. Finish the ends of the pocket with a bar tack or arrow head.

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PATTERNS

To do good clothing work a knowledge of patterns is necessary. A pattern which fits well insures a garment of good lines.

For many garments required in Girls' Club work the kimona sleeve pattern is very desirable. It is a type of pattern which is very easily made and one which every girl may draft to fit her own measurements. By making this pattern the girl has an opportunity to study the measurements and lines of a garment which better enables her to use commercial patterns.

A kimona sleeve pattern may be used for nightgowns, bungalow aprons and dresses.

TO DRAFT KIMONA SLEEVE PATTERN

The following measurements are necessary to draft the kimona sleeve pattern: (Figure 15). Bust, length of garment, and width of sleeve. In taking length of garment measure from highest point of shoulder to floor if for nightgown; for apron or dress, length desired for apron or dress plus amount of hem.

Note—Gowns, aprons and work dresses need considerable fullness around the bottom, therefore it is recommended that care be used in selecting material for gowns and aprons that is not less than 32 inches wide, preferably 36 inches; and for dresses, material that is not less than 30 inches wide, preferably 32 to 36 inches.

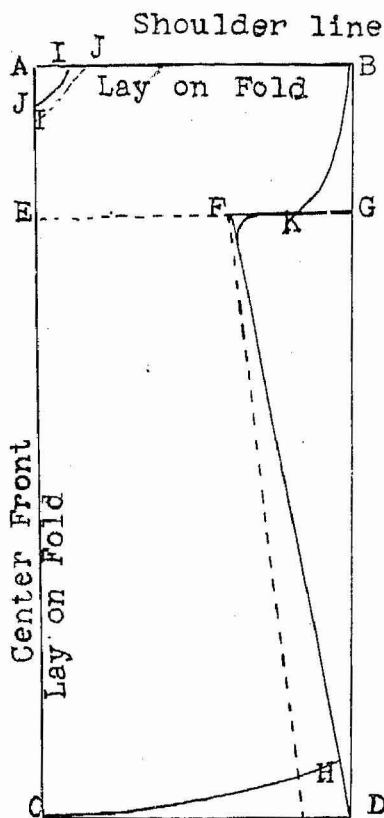


Figure 15. Kimona Draft pattern.
dresses, material that is not less than 36 inches.

The pattern should be drafted on the supposition that the material is 36 inches wide. If material is not that width, gores can be added. If material is 32 inches wide a straighter line can be made from the arm curve to the bottom of the garment. (See dotted line on pattern). For material less than 32 inches wide gores must be added to give the proper amount of fullness.

To Draft

1. Take piece of paper 18 inches wide and length allowed for pattern. (Finished patterns will represent one-half the front or back)

2. Mark corner (top) "A" on left, "B" on right (lower) "C" on left, "D" on right.

3. From "A" measure line "AC" down one half width of sleeve and mark "E". (For gowns, width of sleeve usually 18 inches; for aprons, usually 16 inches; dresses, usually 14 inches.)

4. From "E" measure across pattern to "F", a measure equal to one-fourth bust measure plus amount allowed for fullness. (For gowns, allow three inches, making total of 12 inches for garment; for aprons, allow one and one-half inches, making a total of six inches for garment; for dresses, allow one and one-half inches, making a total of six inches for garment.) Connect "E" and "F" by a dotted line.

5. From "B" measure down one-half width of sleeve or same measurements from "A" to "E". Mark "G".

6. Connect "G" and "F".

7. Draw line from "F" to bottom of pattern.

8. On line "FG" and "FD" from "F" measure one and one-half inches. Connect the two points with a curved line. This makes a better line for seam.

9. Measure one inch from "D" on line "DF" and mark "H". Connect "C" and "H" with a slightly curved line. This is done to remove the sag from under the arm seam.

10. To make the neckline:

(a) Round neck line measure three inches from "A" on line "AB" and mark "I". Measure three inches from "A" on line "AC" and mark "J". Connect "J" and "I" with a curved line. This forms a temporary neck line, the correct size to be cut when ready to finish the neck.

(b) Point-effect neck line-measure from "A" on line "AC"

four inches. Mark "J". Connect points "I" and "J" with a straight line. Fold pattern back on line. (Note in cutting out pattern material is not cut away but folded back in pattern.)

11. Sleeve edge. For curved lines as shown in pattern, measure one and one-half inches in from "G" on line "GF" and mark "K". Draw line connecting "K" and "B". Curved effect is more graceful than straight line. Opposite effect may be obtained by measuring in from "B" on line "BA".

12. Cut out the pattern on the heavy lines.

Cutting Out Garment

1. Fold material in the middle, crosswise and lengthwise.
2. Place pattern on material so the shoulder line "AB" and center front "AC" both come on folded edges of the material.
3. Pin pattern in place.
4. Cut, allowing one-half inch for seams.

COMMERCIAL PATTERNS

Commercial patterns are cut according to average or standard measures. As many of us do not conform to such measures, it is wise before using a commercial pattern to compare our own measures with those of the pattern. This process is called "testing". If pattern does not conform to our measurements, the pattern must be altered.

Testing Patterns

To test a pattern hold it up to the figure. Lines of pattern must conform to lines of body. Mark pieces of pattern which need alteration. Note: Length of shoulder line, underarm, length of center back, center front, width of back and bust, width and length of sleeve.

Altering Patterns

The first step in alteration is to secure measurements of the body. (Figures 16 and 17.) These are taken in the following manner: (a) waist; (b) bust,—around the fullest part of the bust, an easy measure; (c) length of back,—from neck bone in the neck to bottom of tape which has been pinned around the waist; (d) length of front,—from hollow of neck to bottom of tape at the waist; armseye,—around the arm where the sleeve is sewed into a waist passing over the top of the shoulders; sleeve length, from the muscle where the arm joins the body to the wrist bone.

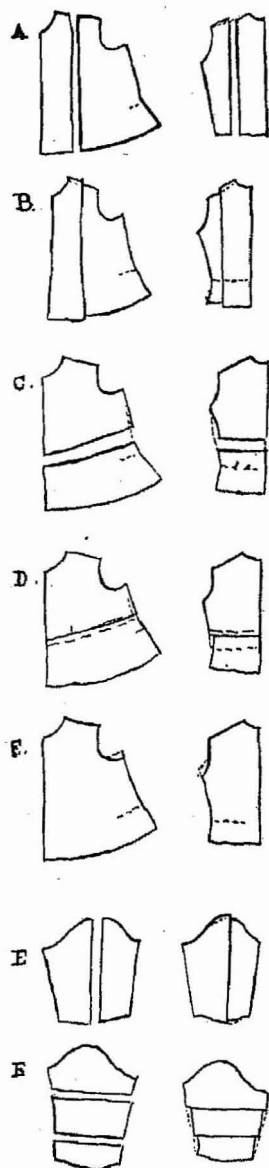


Figure 16. Alteration of patterns. A. Increase bust measure. B. Decreased bust measure. C. To lengthen back and front. D. To shorten back and front. E. To increase and decrease width and length of sleeves. F. To make armseye smaller.

MEASURERS NEEDED: Skirt.

Waist—Straight around the waist line

Hip—Straight around the fullest part of the hips, five to seven inches below the waist line.

Length—Front, side and back, from waist line to the floor.

Cut waist patterns according to bust measure; skirt patterns according to hip measure. Before opening a pattern see that the correct size has been given you and study the directions carefully.

Study the guide chart, to become familiar with the parts of the pattern and the shape of the pieces.

Note which parts are lining, which outside. Decide which you will need to use.

Note seams allowances and how they are indicated; also hems.

Note the markings for tucks, plaits, trimmings, etc.

Open the pattern, select the parts needed, fold the others and replace them in envelope.

Compare the measure of these with your own measure.

To ALTER SHIRTWAIST-PATTERN: (Figure 16).

1. To increase the bust measure. Draw a line straight down from the center of the shoulder, through the waist line, on both front and back pieces of the pattern. Cut through these lines. Separate the pieces of the form enough to give one-fourth the whole amount needed. Do same with back pieces.

2. To decrease the bust measure. Lay a fold from the center of the shoulder through the waist line on both pieces of the pattern, taking up in each one-fourth the entire amount the pattern needs to be decreased.

3. To lengthen back and front. About two inches above the waist line, cut across the pattern. Separate the pieces enough to give the extra length needed. Do this to front and back. Straighten the under-arm seam lines.

4. To shorten back and front. About two inches above the waist line, both back and front, lay a fold across the pattern, taking up the extra length. Straighten the under-arm lines.

5. Sleeves. Apply the same principle suggested for the waist to make a sleeve narrower or wider, longer or shorter.

6. Armseye. To make smaller, cut higher under the arm, by lengthening the underarm seam at the armseye.

SKIRTS: (Figure 17).

1. To lengthen. About twelve inches below the waist line, cut the pieces of the pattern in two crosswise, separating the pieces enough to give the required length. Allow the same amount on each piece.

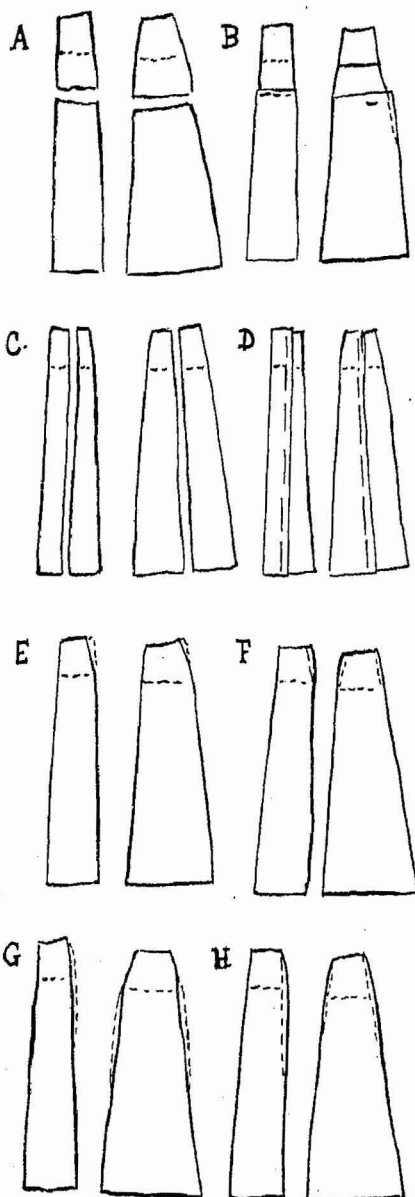
2. To Shorten. About twelve inches below the waist line, lay a fold across each piece of the pattern, taking up the required amount. If a great deal is to come off, part of it may be taken from the bottom.

3. To Increase Waist and Hip Measures. If a two-piece pattern, one-quarter the necessary amount may be added to the center front, and one-quarter to the center back. If more gores are used, cut lengthwise through each side gore, and separate the pieces enough to give in all one-half the amount needed. Add equally to each gore.

4. To Decrease Waist and Hip Measures.—In a two-piece pattern fold off at the center front and center back one-fourth the necessary amount. If there are more gores, lay a fold through the center of each side gore. Take an equal amount from each gore—in all, one-half the necessary amount.

5. To Increase the Waist Measure.—Add a portion of the extra amount needed to each gore at the top, more over the hip than elsewhere. Re-draw the pattern from the waist line to the hip line.

6. To Decrease the Waist Measure.—Take from each gore at the



top a portion of the extra amount there, more over the hip than else-where.

7. To Increase Hip Measure.—Add to each gore at the hip line (the greater amount over the hip) enough in all to give the correct measure; re-draw the line from the hip to the waist, and the line from the hip to the bottom of the skirt.

8. To Decrease the Hip Measure.—Take from each gore at the hip line a portion of the excess measure, enough in all to give the correct measure. Re-draw the line from the hip to the waist and from the hip to the bottom of the skirt.

DECORATIONS

Dresses are decorated by means of collars, cuffs, belts, pockets and panels. In using a Kimona Draft Pattern, many variations in style can be made by applying decorations of different shapes. Belts, pockets, and panels can be cut according to design as seen in fashion magazines, keeping in mind proportion and balance. To cut collars

Figure 17. Alterations of patterns. A. To lengthen skirts. B. To shorten skirts. C. To increase hip and waist measure. D. To decrease hip and waist measure. E. To increase waist measure. F. To decrease waist measure. G. To increase hip measure. H. To decrease hip measure.

and cuffs one has to follow definite principles. Several types of collars and cuffs are described here.

Collars

Rule—The less curve the collar has the more it rolls. The more curve the collar has the less it rolls.

TUXEDO COLLARS: This is made of a straight, four-inch piece of material, preferably cut on the lengthwise of the goods. The real Tuxedo extends to the waistline. Modifications of the Tuxedo can be made by making the collar extend only part way to the waistline and by shaping the ends of the collar any way desired.

ROLL COLLAR: Take rectangular piece of paper long enough for half the collar. (The measurement should be taken from the center back down to depth of collar desired). From one corner measure down one inch. From this point make a gradual curve out to the end of the paper. This makes the neck curve. Shape the outside of the collar as desired.

FLAT COLLAR: Place front and back shoulder seam of waist together. Cut piece of paper exactly the same shape as the neckline of the waist. Shape the outside of the collar as desired. It is easier to cut this pattern before the underarm seams are sewed by pinning the paper to the waist so that it fits on well.

WIDE BERTHA: A fitted bertha may be cut as the flat collar. But if the bertha is rather wide, it will be too circular over the shoulder. To overcome this, place two or three small darts just over the shoulder so that some of the surplus fullness will be removed.

BERTHA WITH ROLL FRONT AND FLAT BACK: Cut the pattern the same as for the wide bertha. In the front, at the neckline, slash the pattern down three or four times and spread. This makes less curve and therefore more roll. The extra length thus made may be removed from center back.

Cuffs

CUFFS FOR SHORT SLEEVES: Take piece of paper as wide as cuff desired and in length equal to one-half size of sleeve plus one inch. At the lower left hand corner measure UP one inch. At the opposite corner measure IN on the bottom line one inch. Connect these two points with a curved line, thus forming the bottom line of the cuff. If

more flare is wanted measure up one and one-half inches. Shape the top of the cuff as desired.

FLARE CUFF: Cut piece of paper as wide as cuff desired and in length equal to one-half size of sleeve. Slash up approximately every two inches. Spread at slashes to form flare. Amount of spreading depends on flare desired. One may cut the lower edge of the cuff any shape.

CUFF FLARING IN BACK: Cut paper the same as for the ordinary flare cuff. By spreading the back pieces the back flare is obtained.

MENDING

Darning

STOCKING DARN: (Figure 18). Darn holes as soon as they appear, while still small. The work is better done on the right side. This leaves

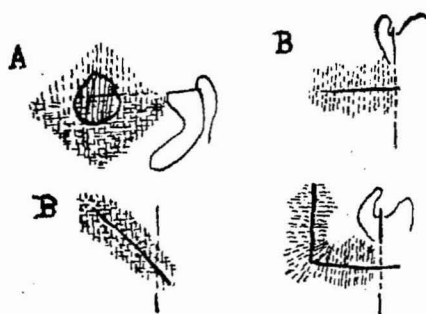


Figure 18. Darning. A. Stocking darning. B. Wool darning.

a smoother surface inside. Use single yarn (mercerized is best) and a needle just large enough to carry the yarn easily. A new fabric is to be constructed by plain weaving to fill the hole. The work should be extended far enough beyond the hole on all sides to strengthen weak places. The worn place may be held over a darning. Care must be taken not to stretch it.

Put the lengthwise or warp threads first. Begin to the right of the center of the hole, far enough from it to be working in firm material; pointing the needle directly away from you, take two or three fine running stitches. Leave an end of thread, which may be cut away later. Then, pointing the needle directly toward you, put in fine running stitches close to the first row, extending a little below the starting point. Do not draw this thread tight, leave a little loop to allow for stretching or shrinking. Repeat, making each row of stitches a little longer than the preceding one, at both ends, until the center of the hole has been reached. Then begin decreasing the length, making the left half match the right half. This will give a diamond shaped darn, in which the strain does not come on any one line of threads in material. When laying threads across the hole, if possible pass the needle through loops at the edge of the hole. If loops are not caught up, make the new threads alternately pass under and over the edge. With fine running stitches along the edge of the darn, pass the needle and yarn to the corner nearest you. Now put in filling threads, weaving back and forth across the warp threads until the entire diamond-shaped space has been filled. When finished, cut the yarn.

TEARS IN WOOLEN GOODS: (Figure 18). All tears are darned with fine running stitches, put in as weaving, and should be as inconspicuous

as possible. Whatever the form of the tear, the stitches must be made in the same direction as the threads of the material. If possible, use ravellings of the material to be darned. Sometimes a hair may be used in wool material. Materials like broadcloth may be darned on the wrong side so no stitches show on the right side.

1. **Straight Tear.**—The easiest form to darn. Begin just beyond one end of the tear. Weave back and forth, at right angles to the tear. When crossing the tear let the threads alternately pass under and over the edges. Make the lines of stitches uneven in length, that they may form irregular edges on each side of the tear; as made so, the work will be less conspicuous, and will wear better. When these crosswise threads have all been placed, it may be well to weave in a few threads through the length of the tear.

2. **Diagonal Tear.**—Worked as a straight tear, with this difference; the threads put in do not cross the tear at right angles. They must follow the threads of the material.

3. **Three-cornered Tear.**—The most difficult of the three forms to darn. Begin work in the corner which will hold loose point in place. Then work should be continued up each side, according to direction given for a straight tear.

When darning a hole which has been worn, whatever the material or article, remember that the material around the hole is probably worn thin, so the darning must be extended far enough to strengthen worn parts and to find strong material to support the darn.

Sometimes it is well to place a piece of material under the tear or hole and catch it in the darning stitches.

Sewing Machine Darning.—Whenever possible use sewing machine in darning, using same principles as in hand darning. (See figure on darning). It is especially desirable in mending table linen, bed linen, and undergarments.

Patching

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

HEMMED PATCH: (Figure 19). Best for undergarments or any article frequently laundered, as it is sewed twice, so is strong and is

flat, having no loose edges. Cut away worn material, thus making the opening regular in shape. If the material has any design, the

patch must be cut to match. Place the patch on the wrong side of the article or garment, pin carefully to place, then baste about one-half inch from the edges. Make a diagonal cut in each corner of the opening, turn the edge under, and baste; then turn to the patch. On the wrong side turn the edges of the patch carefully, baste, then hem to place. This patch may be stitched instead of hemmed, after the raw edges have been turned in and basted.

FLANNEL PATCH: (Figure 19). May be used on material which is too thick to turn in and does not ravel easily. Cut away

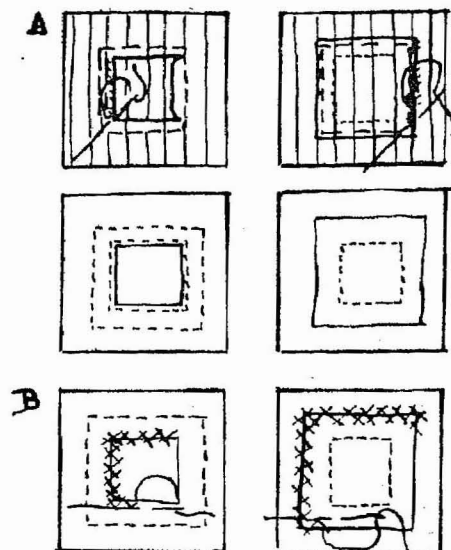


Figure 19. Patching. A. Hemmed patch. B. Flannel patch.

place to be mended regular in shape. It is generally best to follow the threads of the material, making the opening square or rectangular. Cut a patch large enough to extend three-quarters inch beyond the opening on all sides. If the material has a nap, the nap on the patch must run in the same direction as that on the garment. Place the patch to the wrong side of the garment so it extends an even distance beyond the hole on all sides. Pin, then baste to place. Beginning in one corner at the right side, catch-stitch the garment to the patch. Take a stitch in the patch, close to the edge of the garment, the next stitch about one-eighth inch from the edge through both garment and patch and so on around the opening. Then turn to the wrong side and catch-stitch the edge of the patch to the garment in the same way.

PREPARATION OF MATERIALS

Most materials need some preparation before being made into wearing apparel. In general, all wash material, cottons and linens,

need shrinking. Most wool materials need sponging to prevent water spotting and shrinking.

Shrinking

One of the most satisfactory ways of shrinking is to place a folded piece of material in a tub of luke-warm water. Warmer water should be added later and then allowed to cool. The material must be thoroughly wet, even to the innermost fold. If the material is not wrung in any way, but hung, still in folds, it will dry without wrinkling and require little or no pressing. The more care taken in hanging the material evenly the better condition it will be in and less pressing it will require. In ironing see that the iron always follows the threads of the material straight across or up and down with the selvage. It is important to keep the warp and woof threads straight to prevent difficulty in placing a pattern on the grain of the material.

Sponging

In working, the material is placed face down on the ironing table. A wet cloth is laid over and a fairly hot iron used. After enough pressing has been done to make the cloth nearly dry, it should be removed and the material itself should be pressed. Throughout the pressing, care must be taken not to rub the iron along the material in any direction but, in moving, to lift it slightly, otherwise the material will follow it and wrinkle. If the material has a nap the pressing must go with the nap.

Pressing

Much of the pressing which is required in the finishing of a garment, is done in practically the same way as the pressing for sponging. If some of the pressing must be done on the right side, the material should be carefully covered so that the iron will not touch it, as it usually leaves a slight polish.

Setting Color

It is always well, if there is any doubt about fading, to test a small piece of the cloth before washing it. The following are simple directions for setting color.

To one gallon water add:

One-half cup mild vinegar; most effective for blues.

Two cups salt; most effective for browns, blacks, and pinks.

One tablespoon sugar of lead (poison); most effective for lavenders.

The cloth of which the color is made fast should be left in the solution over night. It should be thoroughly dried before being washed. No ironing will be necessary after setting colors in materials not made up, if the material is kept smooth and allowed to dry without wringing. Even with relatively strong colors, soaking a fabric over night in a brine solution before washing it for the first time, may render it far less susceptible to fading influences than it otherwise would be.

TRIMMINGS SUITABLE FOR UNDERGARMENTS

Trimnings should correspond in fineness with the material on which they are used; they should be simple in design and sparingly used. A very little good lace is far better than a great deal of cheap lace.

Laces, (edges, insertions and beadings)

The following laces are satisfactory for undergarments.

1. **VALENCIENNES, OR "VAL":** A fine cotton lace made by hand and imitated by machine. It may be made with a round mesh, German Val; a diamond mesh, French Val; or a square mesh, Fillet Val. Valenciennes laces are suitable for nainsook or fine undergarments, but they do not wear well when used with heavier materials. In general, round and diamond mesh laces wear better than do square mesh laces.

2. **CLUNY:** A linen lace made by hand and imitated by machine, varying in fineness of thread and design. Cluny laces are suitable for nainsook, linen, and cambric undergarments; the heavier qualities may be used on heavier materials. They are very durable.

3. **TORCHION:** A linen lace made by hand and machine. Suitable for all kinds of undergarments and very durable.

4. **CROCHET:** A hand made lace of cotton or linen thread of varying degrees of fineness. Certain typical patterns made in Ireland are called Irish crochet. Crocheted laces are suitable for fine undergarments when made of fine thread in dainty design and white. Colored, clumsy, coarse yokes, and edges of poor design are unattractive, particularly when seen through sheer outer garments; they are too rough to be comfortable when used on a nightgown.

5. **FILLET:** A square mesh, linen, handmade lace, imitated by machine. It is suitable for fine undergarments.

6. **FOOTING:** A net trimming with finished edges like insertion. It is suitable for casings on fine underwear.

7. **TATTING**: A hand trimming made with a shuttle from thread of varying degrees of fineness. It is an attractive white trimming for simple undergarments.

8. **EMBROIDERIES**: (edges, insertions, beadings) Embroideries of various kinds are suitable for any type of undergarments. Entredeux is a seam binding.

9. **BIAS BANDS, BINDINGS, AND FACINGS**: Plain, inexpensive durable trimming may be made of bias bands, binding and facings.

10. **BRAID**: Feather-stitched finishing braid or scalloped braid makes a simple, effective trimming for plain undergarments.

11. **HAND EMBROIDERY**: French embroidery, or satin stitch, and decorative stitches, such as feather-stitching, chain-stitching and the like may be used on fine linen or nainsook undergarments when time is not an object.

12. **MACHINE HEMSTITCHING**: Machine hemstitching is effective for sewing in yokes, holding gathers in place, and the like. It is done at most sewing agencies for a small price a yard.

SUGGESTIONS ON THE CARE AND USE OF THE SEWING MACHINE

A sewing machine which is not well cared for cannot be expected to do good work. The first essential is to keep it clean and oiled. If your machine is hard to run, do not blame the machine until you have made sure that it is not thus protesting against being abused. Examine your machine to find out how to get at every part of it to clean it and to find places where it may need oil. There are oil holes provided, but these do not indicate all the places which need oil. Examination of the machine and working parts will reveal many other places where parts rub together. Every one of these places needs a drop of oil now and then to keep the machine running smoothly and easily, and to prevent needless wear. Use only a good quality of machine oil. If the machine becomes sticky, it may be cleaned with kerosene (coal oil).

Next, the size of thread, needle, and stitch must be adapted to the material in work. Anyone who sews should keep in her work box sewing cotton in several sizes, say 50, 60, 80 and 100, and needles of various sizes. Always use as small a needle as will carry the thread. With the sewing machine there should be needles of various sizes. To

do good work on fine material, a fine needle should be used. Also a fine thread. The stitch should be shorter than when working on coarse, heavy, or thick material. Do not be afraid to use the stitch adjuster. That is what it is on the machine for. Do not be afraid to change your needle. Learn to do it quickly and accurately. It must be correctly placed or the thread will break. Lack of judgment on these points may seriously impair the quality of work done.

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