



# UNIT-10

## Sewing Basics (ii)

### Learning Outcomes

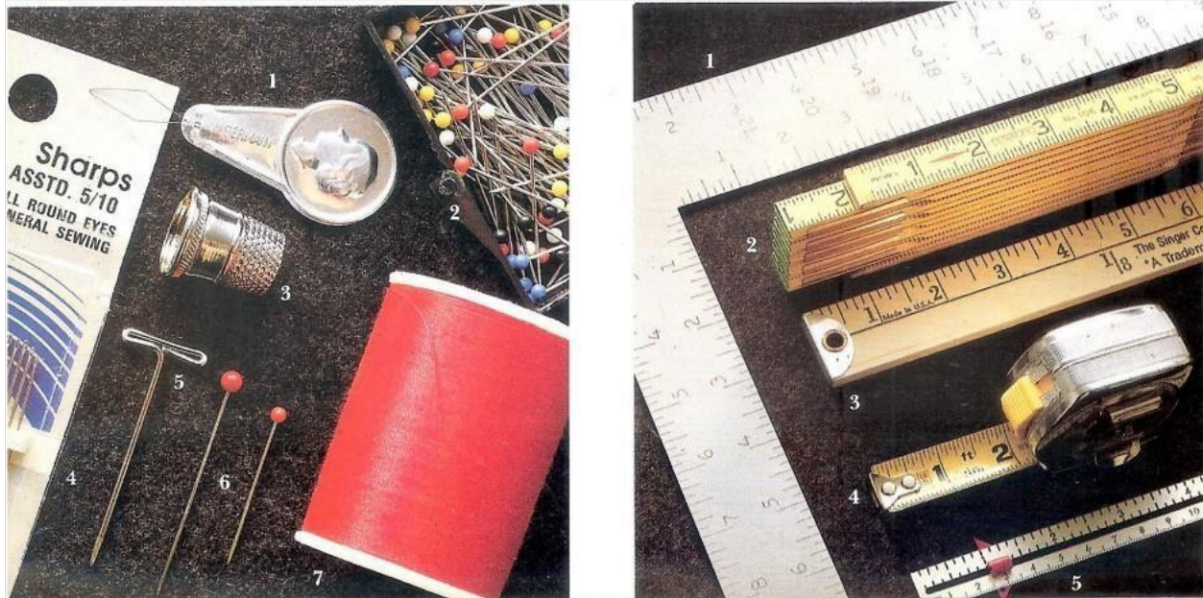
**By the end of this unit the learner will be able to:**

- ✓ List the essential tools required in dressmaking
- ✓ Describe the health & safety measures when working in the sewing lab
- ✓ Explain how to prepare an area for sewing
- ✓ Understand how to sew a seam and darts

## Unit 10

### Sewing Basics (ii)

There are many steps involved in sewing: measuring, pattern laying, cutting, marking, stitching and pressing. For each step, particular tools and supplies are used which make the sewing process easier. They also assist artists in completing projects successfully.



It is important to use the proper equipment. This makes work easier and yields more satisfying results.

1. A needle threader will ease threading of hand and machine needles.
2. Plastic or glass headed pins are easier to see and handle.
3. A thimble will protect the middle finger when sewing by hand.
4. T-pins are used to anchor fabrics to solid surfaces. They are long, sturdy, and broad-headed pins.
5. Quilting pins are useful for working with heavy or thick materials. They are extra long.
6. All-purpose thread is used for hand and machine sewing on almost all fabrics. Choose all-cotton, cotton, wrapped polyester or all-polyester thread, depending on the fibre content of the fabric.
7. Wood folding ruler - to measure large areas. Its stability makes this ruler more accurate than a tape measure.
8. Yardstick - to measure long, flat lengths of fabric, and for marking and squaring grain lines. The yardstick should have a smooth surface so it does not snag the fabric.
9. Spring-return metal tape – to measure large areas. It is also handy for measuring around curves.
10. Seam gauge – perfect for quick, short measurements such as those for hems. The 6" (15 cm) metal or plastic ruler has a sliding marker for accurate measuring.



Useful for laying and cutting lengths of fabric (up to 1.85 metres), is the *cutting board*. It is marked with both vertical and horizontal lines.

For marking fabric, use *tailor's chalk*. It is specially designed for fabric marking and easily rubs off. For straightening and trimming edges, use a set of *trimmers*. They have straight handles that are useful for this.

For accuracy, use a *lightweight slim blade*.

For removing stitches, use a seam ripper. Use carefully so as not to rip the fabric.

To keep fabric flat during cutting by using *bent handled shears*. Ideally, they should be lightweight and therefore easy to handle. Between 8 – 9 inches (20.5-30 cm) long is a good size.

To get sharp, defined lines on firm fabrics, use *liquid marking pencils*. There are two types that are good to use:

- a) A pencil that makes a mark which can be removed easily with water.
- b) A pencil which leaves markings that disappear within 18 hours.

Before using the marking pencils, it is a good idea to test them on a fabric scrap. Ironing will set the markings permanently so if the markings are on the right side of the fabric, do not iron until these markings are removed.

*Notions* are anything attached to a finished garment, such as buttons, snaps collar stays, trims and so on. As such, they are more decorative. Other notions are small tools used in sewing and include things like marking pens, seam rippers, threads and pins. Notions such as the rings used on Roman shades are vital to constructing an item. Things like fabric glue, for example, make the sewing process easier. Most decorative trims are available in a wide variety of colours and styles. Choose the ones that will complement the item you are sewing and those with the same care requirements as the fabric.

On different projects, things like *tapes*, *rings* and *CORDS* all have specific uses.

For bonding or hemming, use *fusible web*. This will easily bond two layers of fabric together. This is available in narrow strips for hems or 46cm widths for fusing bigger areas. For temporary basting, *fabric adhesives* like glue stick or craft glue can be used. They can also be used to permanently apply batting or trims to items that will not be handled too much.

## Stitches, Seams and Seam Finishes

To be able to construct basic garments, an understanding and knowledge of sewing techniques, such as, simple seams, stitches, darts, pleats and gathers must be obtained. It is necessary to learn the basic hand stitches used in garment making, before learning to stitch seams using a machine. Basic hand techniques are divided into constructive and decorative stitches. Constructive stitches are then further divided into temporary and permanent.

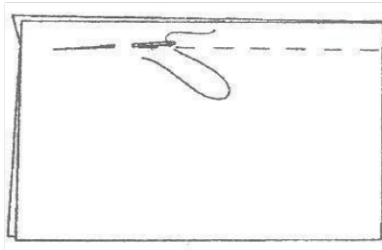
### Hand Sewing Techniques

#### Temporary Stitches

The use of temporary stitches is for holding garment pieces together until permanent stitches are put in place. Temporary stitches are sometimes referred to as tacking or basting stitches. They are usually horizontal and sewn from left to right with a knot. It is a better idea to use a contrasting colour thread for tacking. The different types of basting stitches are:

**a. Even Basting**

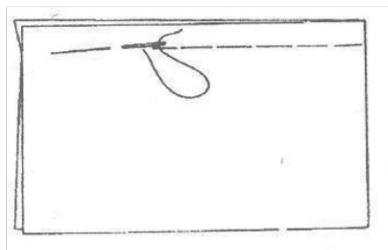
Even basting is for tacking seams and other details that need to be held securely. The stitch length is equal, about  $\frac{1}{4}$  inch on both sides of the material (Fig.10.1a)



**Fig. 10.1a** Even basting

**b. Uneven Basting**

On the upper side of a fabric there is usually stitching visible double the length of that on the underside. It is usually half an inch. This type of stitching should be used as a guideline where there is very little or no strain (Fig 10.1b).



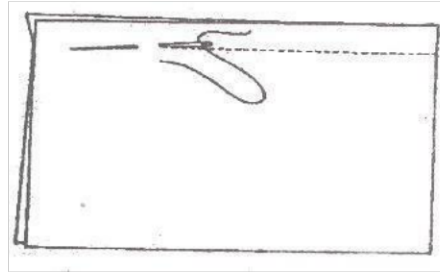
**Fig. 10.1 b** Uneven basting

#### Permanent Stitches

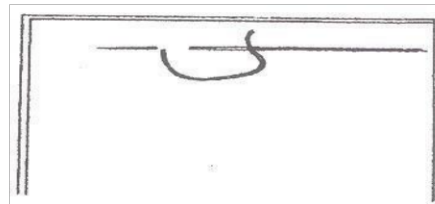
Permanent stitching is that which is left in the garment and forms part of the final garment. Permanent stitching does not usually use knots for starting. At the beginning of a row, two or three stitches are helpful in securing the stitching, especially on flat seams.

**a. Running stitch**

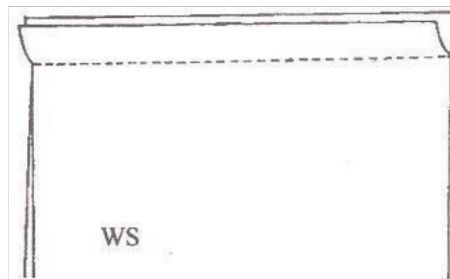
This is used for permanent sewing hand seams like gathering, shirring and tucks, etc., and is actually the simplest form of hand stitching. It is similar to even basting, except that the stitches are smaller. This type of stitching should be fine, evenly spaced and straight, about 1/16 to 1/8 inch in length. When doing this type of stitching, pass the needle through the fabric several times before pulling it through. See Fig 10.2a.

**Fig. 10.2a** Running stitch**b. Backstitch**

This type of stitching is sometimes substituted for machine stitching and is very strong. The stitching is about 1/16 to 1/8 inch long on the topside. This stitch is made by pushing the needle up through the material on the stitching line about 1/8 inch from the right end. Insert the needle 1/8 inch back of the thread at the beginning of the stitching line then bring it out an equal distance in front of the thread. Keep going like this and make sure the stitches are uniform in size and quite firm, see Fig 10.2b.

**Fig. 10.2 b** Back Stitching**c. Run and Back or Combination Stitch**

With this combination, a backstitch and three or four running stitches are used, in particular for working plain seams that are done by hand. This is a stitch which is stronger than the running stitch and faster than the backstitch.

**Fig 10.2c**

#### d. Hemming

Hemming is used to secure the folded edge of material hems. This will appear as small, slanting stitches on the right and wrong side. This stitching should be spaced close enough to hold the hem securely and should be firm, but also far enough apart so it's not noticeable from the right side of the garment. Fasten the thread with a few tiny stitches on top of each other before starting the hem. To finish off the hemming, use several stitches to make sure it is fastened securely. The two kinds of hemming are:

##### a. Slip Hemming

Slip hemming is for hems, folds or facings where invisibility is important and strength is a secondary consideration. The thread is to be fastened beneath the hem, then bring the needle out through the edge of the fold. Exactly where the thread leaves the fold is where to make a very small stitch. Insert the needle in the hem and slip it inside the fold bringing it about half an inch away as it comes out. Repeat this stitching (Fig. 10.2d).

##### b. Knotted Hemming

Knotted hemming is worked from right to left using a small, vertical stitch. This stitch is made so that the thread will pass around the needle tip and upon pulling the needle out it will form a knot around the stitch. This way, the stitches are secured with the knot and are very strong (Fig 10.2d and e).

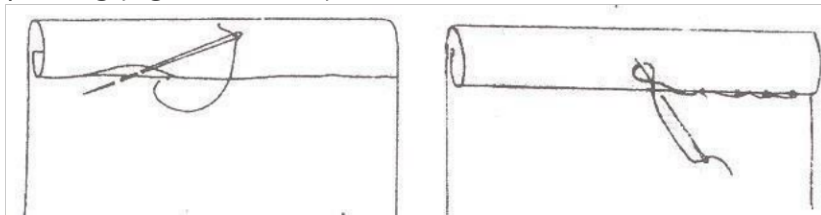


Fig. 10.2d Slip hemming

Fig. 10.2e Knotted hemming

## Seams

Making a seam is a way of joining two (or more) pieces of material together with a row of stitching. These seams are functional and therefore are also referred to as constructional seams. They should be as flat and invisible as possible. The only exception would be those seams that are there for decorative purposes in the garment design and line.

Seams can be flat or ridged. Plain and flat fell are examples of flat seams. Ridge seams also include the French seam. Seams may be inconspicuous or conspicuous. Inconspicuous seams will not have visible seams on the right side of the garment, examples of which include corded, French and plain. Conspicuous seams will be visible on the right side of a garment. These seams would be fell seams and lapped seams, for example.

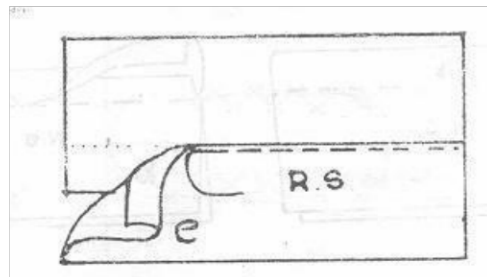
**a. Plain Seam**

The plain seam is the most used as it is both pliable and inconspicuous. It can be used on all fabric types, with the exception of those that are very transparent. Plain seams are suitable for firm fabrics which do not ravel and can be washed and handled frequently. Plain seams are also used for side seams or under arms.

Take the two pieces of fabric that are to be joined and place them together, right sides facing. Use tacking stitches on the seam line and machine.

**b. Lapped Seam**

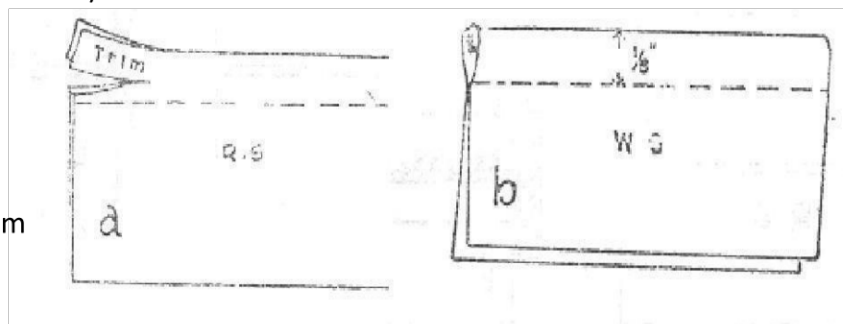
A lapped seam is mostly used for joining a gathered or unaltered section to a straight edge, usually as in a yoke. Take the part that is to be laid on top and turn its seam allowance to the wrong side. Place this piece on top of the second piece, making sure the right sides are facing. Match the fold to the seam line. Tack in position and machine close to the folded edge (Fig.10.3a).



**Fig. 10.3a** Lapped seam

**c. French Seam**

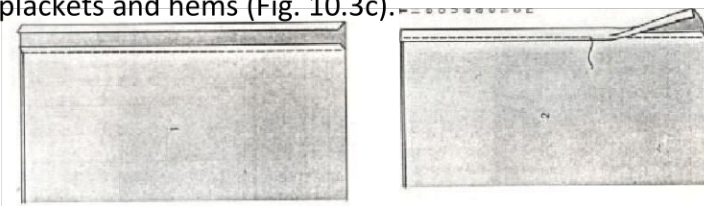
On transparent or lightweight fabrics, especially on delicate blouses or baby clothes, a ridge seam is used. This is because it has a neat and durable finish and any raw edges are totally enclosed (Fig 10.3b). Any two pieces of material that need to be joined are put together with the wrong sides facing. Make a row of stitching  $\frac{1}{8}$  inch and then press the seam and turn the material right sides together. Crease the first row of stitching and make sure it is exactly on the edge. Tack and stitch along the seam line around  $\frac{1}{8}$  inch from the fold.



**Fig.10.3b** Flat fell seam

**d. Bound Seam:**

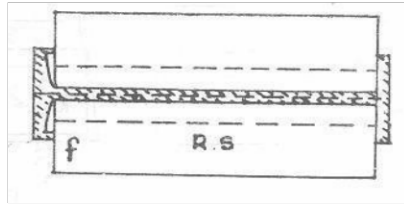
Fold the separate binding strip over one (or more) piles of material and seam the strip with one (or more) rows of stitching. Often, these seams are used as edge finishes at necklines, sleeves plackets and hems (Fig. 10.3c).



**Fig. 10.3c** Bound seam

**e. Slot Seam:**

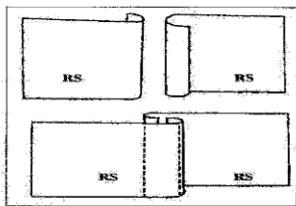
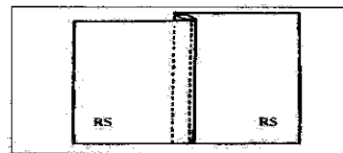
This seam is usually used down the centre front and centre back of coats, dresses and skirts, and is a variation of the lapped seam. This seam will give the piece of clothing a decorative effect when the fabric of the backing piece stitched in-between is a different colour (Fig. 10.3d). You can machine baste on the seamline and this will leave long threads on each end. Press open the seam and cut 1 ½ inch wide underlay of fabric which is the same or a contrasting fabric. Centre it under seam and baste.

**Fig. 10.3d** Slot seam**f. Counter Seam**

A counter seam is durable and usually used for men's wear and reversible pieces, which use very thick material. There are two methods of doing this:

**Method I** - Turn down a small portion of the wrong side of a fabric and also on the right side of the other piece. Iron them strongly. Take the first piece on the wrong side and the second piece on the right side, making sure to maintain the seam allowances, then tack them in position. Use a machine to stitch it along the folded edges (Fig. 10.3e). This is a three-layered counter seam.

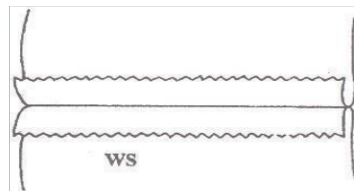
**Method II** - Using the wrong side of a piece, turn it down 0.5cm and take the right side of the other piece. Iron them firmly. Keep the wrong side of the first piece on the right side of the second piece. Move the turned-down edges under each other then pin them in position and tack them. Using the machine, stitch along the folded edges from the right and wrong sides, as in Fig. 10.3f. This is a four-layered counter seam.

**Fig. 10.3e** Counter Seam (threelayered)**Fig. 10.3f** Counter Seam (four layered)**Seam Finishes**

In order to prevent any fraying of raw edges and make sure the seams are durable, it is necessary to use

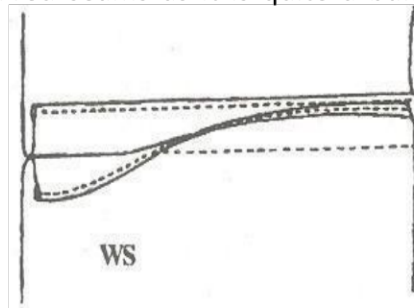
seam finishes. The other reason is that seam finishes keep the appearance neat to the inside of the garment. Seam finishes are not absolutely necessary for the completion of a garment; however, adding them will significantly increase the garment's lifespan. There are three aspects which determine the seam finish decision. These are: the weight and type of the fabric, the amount of fabric and the kind of wear the garment will get. These three things will determine if the seams should or should not be seen. Below are the different types of seam finishes:

- a) **Pinked Finish** This is called a pinked finish because it is done with pinking shears. It is not a bulky finish; however, it should be avoided with any fabric that easily unravels. When you have finished stitching a plain seam, cut off about 1/8 inch of the seam allowance with the pinking shears (Fig. 10.4a). Press the seam open.



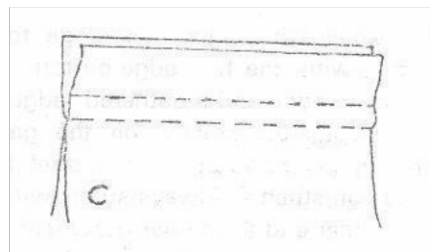
**Fig. 10.4a** Pinked seam finish

- b) **Edge Stitched Finish** This is when the seam is stitched and pressed open (Fig.10.4b). Turn under ¼ inch on each seam edge and top stitch near the fold, without catching the garment. This finish is not appropriate for deeply curved seams as it is quite a bulky finish, which is mostly used on unlined jackets or coats.



**Fig. 10.4b** Edge stitched finish

- c) **Double Stitch Finish** Make a plain seam and then work another line of stitching ¼ inch from the raw edge (Fig. 10.4c). This particular stitch is not a good idea for bulky fabrics and is usually used for a plain unfinished or pinked seam.



**Fig. 10.4c** Double stitch finish

- d) **Overcast Finish** The overcast stitch is used for materials that fray easily, be they thick or thin. It is also a good stitch to use for seams that get hard wear or extra strain (waistlines and armholes) and also for narrow seams. Make the plain seam first, then press the seam open and work casting stitches over any raw edges of the two seam allowances separately (Fig. 10.4d).

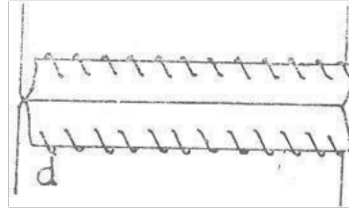


Fig. 10.4d Overcast Seam Finish

- e) **Herringbone Finish** The herringbone is used to neaten raw edges of heavy fabrics, such as flannel. It holds down the turning and makes the seam flat, which avoids any bulkiness. Press the seam open and work herringbone stitches on the two raw edges, catching the garment (Fig. 10.4e)

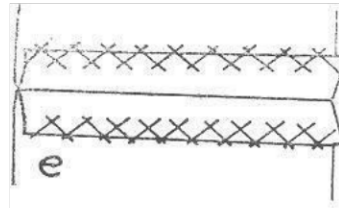


Fig. 10.4e Herring bone finished seam

- f) **Bound Seam Edge Finish** Here, the seam is pressed open and the bias binding is attached to both seam edges, (Fig. 10.4f). Seam allowances could be pressed together and bias binding attached to every layer separately for thin fabrics.

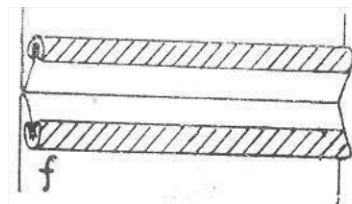


Fig. 10.4f Bound seam edge finish

## Fullness

An important feature of style is fullness. It is also necessary for ease of movement in a garment that is well-fitted. Fashion will dictate the basic methods of controlling fullness that often recur and will be adapted to improve the current style. Some methods for creating or introducing fullness to a garment are through tucks, pleats or gathers.

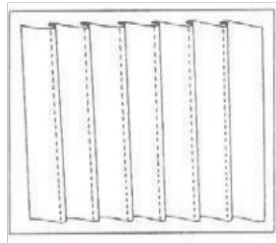
## Tucks

What is a tuck exactly? It is a fold of fabric that is stitched in place by a machine or running stitch on the right side of a piece, as a way of shaping the garment to the body, holding fullness or adding decorative effects at the shoulders, waist, yokes, pockets or sleeves. Tucks which are partly stitched assist with the shaping of garments. In children's clothes, they are used because they allow for growth. With thinner fabrics, tucks will increase the body. For plain fabrics tucks will add interest.

Tucks can be made in clusters (or little groups) and also made to become gradually wider. In order to correctly calculate how much material will be needed, allow for a measure of twice the tuck's finished width. For example, when making a cluster of 4 tucks, all  $1/8$  of an inch finished width, calculate  $4 \times (1/8 \times 2) = 1$  inch of extra material.

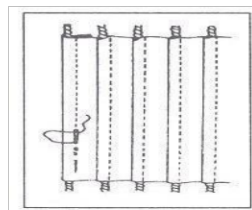
For the stitching of tucks, it is necessary to fold along the middle so that the stitching lines correspond and stitch along the markings. Only when the stitching of the tucks is finished should the garment section be cut. There are a few ways of tucking and these include:

- **Pin Tucks** Used mainly for fine blouses or baby clothes, these are very small, dainty tucks. Each tuck fold should be stitched along the middle of the markings. They can be tacked or a machine baste about  $1/8$  inch wide from the fold can be used. (Fig 10.5a).



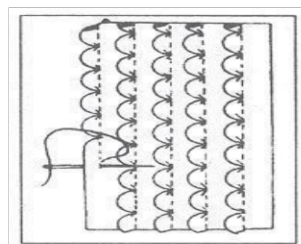
**Fig. 10.5a** Pin tucks

- **Piped or corded Tucks** To make these types of tucks, place cording on the wrong side of the fabric at the centre of the tuck before stitching it (Fig 10.5b). Make sure it is stitched close to the cording.



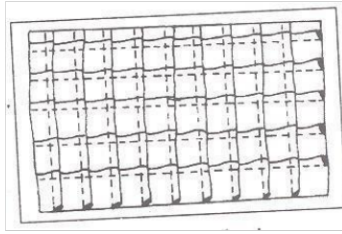
**Fig. 10.5b** Piped or corded tucks

- **Shell or Scalloped Tucks** These types of tucks are decorative and can be made either by machine or by hand. As each dot is reached, take two overcast stitches through the dot and pull tightly. Then proceed further with the running stitches (Fig. 10.5c).



**Fig. 10.5c** Shell or Scalloped Tucks

- **Crossed Tucks** If there are rows of tucks stitched along the fabric horizontally and vertically, this is called cross-tucking. Stitch the vertical tucks first and then press them to one side. Stitch the horizontal tucks next (Fig. 10.5d).



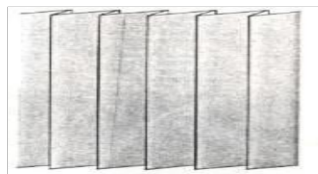
**Fig. 10.5d** Crossed tucks

## Pleats

A pleat is a fold of fabric and its presence will give fullness to some parts of the garment. A pleat can be placed on its own, or in a series. It can be pressed flat or kept unpressed, depending on the garment's style. A pressed pleat or pleats will produce a garment with a smooth, slimming line. An unpressed pleat or pleats will give a fuller and softer shape.

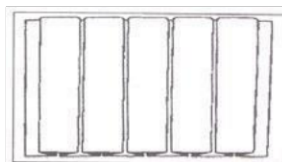
It is usually at the waistline of dresses or skirts that pleats will be placed. This is done to provide fullness all around and make the garment more even-looking. Pleats are prepared in a similar way to tucks. The only difference is that pleats are almost never stitched all the way down. Most often, pleats are stitched part way down a garment for flatness. Pleats need extra material to make – twice the width of the finished pleat, though sometimes three times the amount of material must be used when pleats touch each other all the way around a garment. Many different types of pleats can be used in garments. The more common pleats are:

- **Knife Pleats** These are about ½ inch wide and turned in the same direction (Fig 10.6a). It is possible to reverse the direction at the centre front or centre back. Make sure all the pleats move in the same direction though. Press them. To create a slender effect, top stitch the pleats in place from waist to hip. To create fullness at the bottom of a garment, use a knife pleat. This is usually done for tailored garments. (Fig 10.6a)



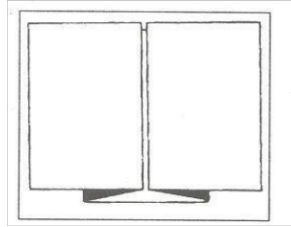
**Fig. 10.6a**

- **Box Pleats** These are two knife pleats facing opposite directions – one to the right and one to the left. This will form a box pleat (Fig 10.6b). Usually, this type of pleat is used in uniforms.



**Fig.10.6 b** Box Pleats

- **Inverted Pleat** An inverted pleat is the opposite of a box pleat in that it is made up of two knife pleats facing each other. This way the folds meet in the centre on the right side of the garment. Usually, it is placed at the centre front or back and will look like two knife pleats that are facing away from each other on the underside (Fig 10.6c).



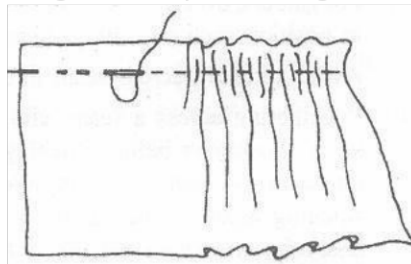
**Fig. 10.6c** Inverted box pleat

## Gathers

To achieve a decorative and very effective method of distributing fullness over a particular area, use a gathering. This provides fullness and creates a soft look. They are also very graceful, when applied appropriately. A machine can be used to make the gathers, or they can be done by hand. Draw the fabric together on a line of stitching. Gathers are used to control fullness around the waist, neckline, yoke line, and upper and lower edges of sleeves.

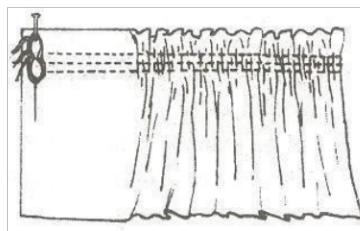
There are different ways of making gathers:

- **Gathering by Hand** Here, you can work two rows of running stitches  $\frac{1}{4}$  inch apart to  $\frac{1}{8}$  inch above and below the seam line. Draw the ends of the threads until the section is of the desired length. Secure threads by winding round a pin as is Fig. 10.7a



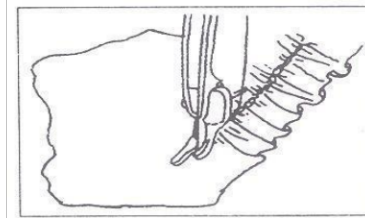
**Fig. 10.7a** Hand Gathering

- **Gathering by Machine** On the right side of the fabric, make a seam line. Do this by adjusting the machine for long stitch and loosening the upper tension just a little. Work two rows of machine stitches  $\frac{1}{4}$  inch apart and distribute the fullness equally by pulling the two bobbin threads together (Fig. 10.7b).



**Fig. 10.7b** Machine Gathering

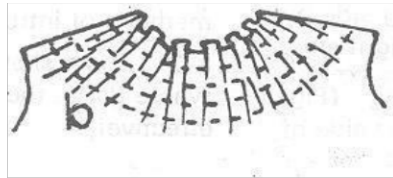
- **Gathering by using Elasti** Stretch a narrow strip of elastic stitching on the area of the garment that is to be gathered (Fig.10.7c).



**Fig. 10.7c** Gathering using elastic

## Shirring or Gauging

Shirring refers to the gathering of an area of fabric by means of drawn or elasticized threads in parallel rows, which are used for a decorative finish (Fig. 10.8a). This can be a decorative feature on the waistline, shoulder, or the lower part of a sleeve. Shirring is usually at the parts of a garment that are narrower, so this also gives room for a certain amount of stretching. The rows must be equally spaced. Shirring can be done in two ways: thread shirrs and elasticised shirrs.



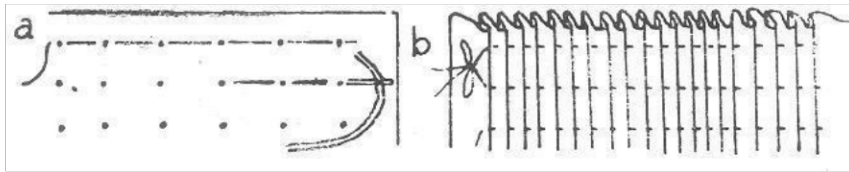
**Fig. 10.8a** Shirring

## Smocking

Smocking is another type of decoration on garments. This is made by gathering a section of material into tight pleats, which are held by tight stitches sewn over the folds on the right side of the fabric. The purpose of this is to hold fullness or to increase texture and surface interest to a neckline, sleeves or the bodice of women's or children's dresses. Softer and flat-surfaced fabrics are better-suited for smocking. These would include crepes, voiles and cambric. A twisted thread of silk or cotton of a medium-sized weight should be used.

### Gathering Fabric

To smock on plain material, mark it on the wrong side with a sequence of evenly spaced dots, at 0.3 cm apart and 0.5 – 1 cm distance between rows (Fig. 10.9a). This distance can be increased somewhat when using heavier fabrics. Anything with plaids, dots or checks does not need the transfer of the pattern. The way to do it is to pick up the dots along one row and make a few running stitches, using a strong thread. Depending on the area to be covered the rows will range in number. For the smocking area to be covered, the fabric width must be three-times as long as the gathered fabric. On the threads, draw up the fabric and fasten the ends by winding them together around the pins. The pins should be placed at one end to hold them firmly (Fig. 10.9 a & b).



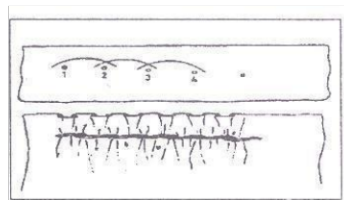
**Fig. 10.9a** Preparation of material for smocking

### Stitches Used for Smocking

The stitching is worked from left to right. It is necessary to use good quality threads which are the appropriate colour when smocking.

#### a. Outline Stitch

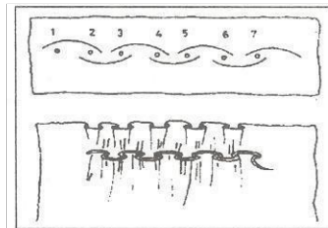
This stitch is used to make outlines and is like a stem stitch. Each row should be worked over the tubular folds of the fabric. Take the needle out on the first fold at the far left. Do this by making a small back stitch over the fold. Make sure the thread is kept under the needle. After each stitch, draw up each fold firmly (Fig 10.9b).



**Fig. 10.9 b** Outline stitch

#### b. Cable Stitch

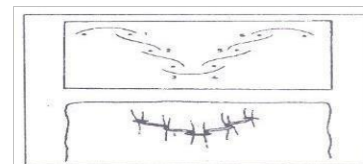
A cable stitch is a modification of an outline stitch in two close rows. Begin in the same manner as for the outline stitch. Keep the thread above the needle for the first stitch and then keep it below the needle for the second stitch. Keep repeating this pattern throughout the row (Fig. 10.9c).



**Fig. 10.9 c** Cable stitch

#### c. Wave Stitch

Make odd numbers (5,7,9) of outline stitches diagonally upward and then downward, in order to make the wavy effect of a wave stitch. When making the upward row, ensure the thread is kept below the needle. For the downward row, keep the thread above the needle. Repeat this to make rows of wavy designs or diamond shapes (Fig. 10.9 d).



**Fig. 10.9 d** Wave Stitch

#### d. Honeycomb Smocking

Move the needle out in the first pleat and take two small backstitches over the fold to secure the thread. At about .5 cm below the first stitch, pull the needle through the first fold. Keep the thread above the needle. With the thread below the needle, pull it through the second fold at the same level. Pull the thread together tightly. Put the needle through the same fold as the first stitch (at the same level) and then when the thread is above the needle, put it through the third fold at the same level. Draw the threads together tightly and repeat this process until the end of the row (Fig. 10.9e).

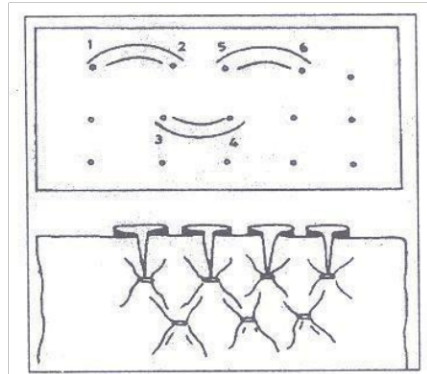


Fig. 10.9 e Honeycomb stitch

### Frills or Ruffles

Ruffles are used to add decoration to garments. They are fabric strips which are cut in a particular way in order to produce fullness. Ruffles can be used at the hems of dresses and skirts to add length to them. For frills, it is necessary to allow a little more than one and a half times the length of the piece (the piece that the frill will be attached to). The frill width should be around one to three inches and the longer side must be cut along the lengthwise grain. Concealing the gathered edge of a frill can be done in the seam, facing, wide band or the binding (Fig. 10.10).



Fig. 10.10 Frills or Ruffles

### Godets

A godet is a wedge-shaped piece which is placed into skirts, in order for the wide side of the wedge to make part of the skirt hem. Godets can be set into skirt seams. Alternatively, skirts can be cut so that the cut edges create the seams that connect into the godet (Fig. 10.11)

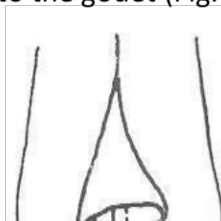


Fig. 10.11 Godet

## Fasteners

In order for clothes to be put on and taken off easily, they of course need openings. The openings can be closed in different ways, depending on their positions, how much strain they will receive and whether or not they are to stay concealed or perhaps serve as a decoration on a piece of clothing. One thing that must be kept in mind with closures is that they must perfectly match – no puckering, pulling, or gaping of fabric should be visible. This will give the garment a neat appearance.

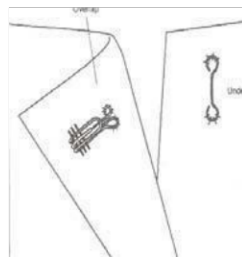
For strength, fasteners must be fixed onto double material. They must also be fixed in a way that the right falls over the left side of a garment for women's clothing, while the left goes over the right for men's. Opt for fasteners which suit the design, texture and colour of the fabric, the use and style of the clothing and position of the placket/opening. The age and gender of the wearer must also be taken into account. Buttons and button holes, for example, are most often used for men's shirts or trousers. Hooks and press buttons are most often used in women's garments like dresses.

### Hooks and Eyes

Hooks and eyes are relatively strong fasteners, despite their small size. They are usually applied at the neckline or waistband, at the single points of a garment. They are also useful to fasten an entire opening. Each hook and eye is designed for a particular purpose. The smallest are the general purpose hooks and eyes. These are mainly used as supplementary fasteners. An example of this would be hooks or eyes placed at the top of a zipper placket.

The bigger and heavier hooks and eyes are the more special-purpose types. They can withstand more strain than the general purpose fastening. With these, the hooks are sewn onto the back of the overlap and are placed in a way that the hook end does not extend further than the underlap edge. Over-sew every loop and across the hook bar. On the opposite right side of the underlap is where the metal bar, or eye, should be placed and over-sew around the loops. Hooks and eyes should not be visible when fastened.

It is possible to use a thread eye as a hook and eye substitute for a metal eye in some instances. Thread eyes are weaker than metal eyes, and because of this they should not be used in places where there may be too much strain (Fig. 10.12).



**Fig. 10.12** Hooks and eyes (metal)

## Thread Eyes / Loops

To make a thread eye, take a single strand of strong thread, buttonhole twist or a double-strand of common sewing thread. Make sure the colour matches the fabric. The thread eye must be as long as the space between its two placement marks. Put the needle into the fabric at one of the marks and bring up at the other mark. Keep going with another 2 or 3 more stitches in this way, then cover all the strands with blanket stitches that are close together. Be careful to ensure that the fabric beneath does not get caught. When completed, bring the needle and thread to the wrong side of the fabric and fasten it, making sure it's secure. Often found at the neck edge of a collar, the thread hook is a subtle fastening. In order to create a thread loop, use matching thread and sew 4 or 5 strands in the right position on the underlap. After that, work the button hole stitches over these strands (Fig. 10.12 a).

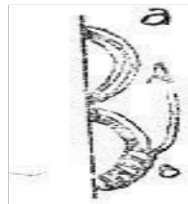


Fig 10.12 a Thread Loops

## Buttons

Buttons must be given thought and chosen carefully, in order to suit the fabric in term of both weight and colour. There are many benefits to using buttons as closures. Buttons are not only decorative but also provide a key function. They must be sewn with strong thread which matches the colour and done so in a way so that the buttonholes can close under the buttons, without the fabric gathering. Because buttons get quite a lot of wear and tear, the fabric in which they are sewn must be reinforced. This will prevent tearing or pulling when they are strained.

Two types of buttons exist: buttons with holes and shank-type buttons. Shank types are found attached to the underside of garments. Buttons come in a variety of textures such as glass, plastic, metal, fabric etc. Buttons that are covered with fabric are often used on dresses. Tailors can cover buttons with scraps of any fabric you give them, using a particular type of machine or by hand.

With the exception of unusual designs, buttons are positioned centrally on centre front and back lines of clothing. Spacing is important and must be equal, so that openings are neat and avoid gaping between buttons. Depending on the position of the openings, button size and fabric weight, the width of spacing can be determined. Designers must be careful to ensure the right number of buttons are used, i.e., not too many or too few, as the appearance of the garment can be ruined with the incorrect amount. Buttons should be placed to avoid gaping on shirts or blouses. On waisted garments, buttons should always be placed at the waist. This is because it is the garment's stress point.

### Fashion Design

Buttons can be:

- Placed to give a double-breasted effect to a garment
- Grouped in pairs
- Be used only as decoration and not as functioning fasteners

The most common buttons used on garments are flat-sewn through with either two or four holes,

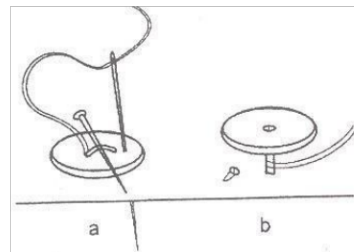
buttons with a shank, which is a little loop on the lower side for the purpose of sewing the button onto the clothing), covered buttons and link buttons.

#### a) Sewing Buttons with Holes

These types of buttons are sewn with a double thread. The needle should be brought up and down through the button holes in the buttons and a pin kept over the button. When enough stitches have been sewn, remove the pin and lift the button to form a shank. This is done by winding the thread around the strands very tightly, generally around 5-6 times. Fasten the thread on the underside of the material. Buttons which contain 4 holes can be sewn in a cross shape, using two parallel lines and an arrow head or a square (Fig. 10.13a).

#### b) Sewing Fancy or Shank Buttons

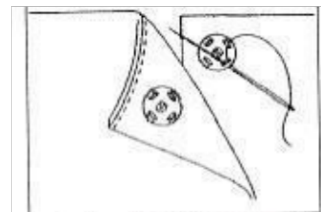
To sew on shank buttons or other fancy buttons, bring the needle through the fabric first, then shank, then back again through the fabric. Stitch it until secure and then fasten the thread on the wrong side of the fabric (Fig. 10.13b).



**Fig. 10.13** Sewing buttons with (a) holes and (b) shank

#### c) Sewing Press Buttons or Snaps

Press buttons, sometimes called snaps, (Fig.10.13c) are small fasteners. They generally have less holding power than eyes and hooks. It is a good idea to have them in an area that won't get much strain. These buttons have two parts called a ball and a socket. These buttons can be found in different sizes ranging from heavy to fine.



**Fig.10.13c** Sewing Press Buttons

### Button Holes

On garment openings, button holes are made on an overlap area. They must be kept in line with the buttons on the underlap, for obvious reasons. Buttonholes can be made on garments by machine, by hand or bound buttonholes, depending on the garment design, how well the designer can sew, and the type of fabric being used. Below are the steps involved in working with buttonholes:

#### a. Marking the Position for Vertical Buttonholes:

These are generally used with a narrow placket like shirt bands, or in garments which contain many small buttons. The button placement line is where they should go and the top of the buttonhole is 3mm above the area for the centre button.

**b. Marking the Position for Horizontal Buttonholes:**

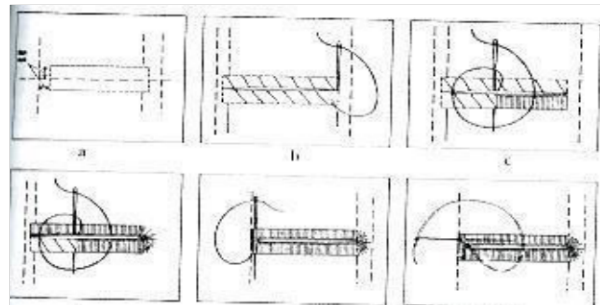
Horizontal buttonholes are the most commonly used as they are very secure. If they are buttoned, the closure pull is absorbed by the end of the buttonhole. There will not be much distortion of fabric. These buttonholes are 3mm beyond the button placement line (Fig.10.13d).

**c. Hand-worked Buttonholes:**

Once a garment is finished, these buttonholes are placed on children's and men's clothing. It is better to avoid any fabric that frays or stretches easily. In cases where the detail must be finely completed, use hand worked buttonholes. The thread should match and the stitches should be uniform lengths sewn close together. Double fabric is used with worked buttonholes. Because of this, collars, cuffs and facings have to be finished first. Use a row of tacking to mark the centre of the buttonhole. Place a button and mark its diameter with a pencil to mark the length. Be careful to not slash the garment. Stitching is then made around the entire buttonhole, with fine hand stitches. The buttonhole must then be folded end to end and a small cut made in the middle with sharp scissors.

Open, cut and slash to the ends. Make a backstitch on the wrong side, near the end of the buttonhole, leaving the thread. Bring the needle out to the right side through the buttonhole. Turn the garment right side up and hold the cut buttonhole over the index finger of the left hand. Thread the buttonhole using buttonhole stitches.

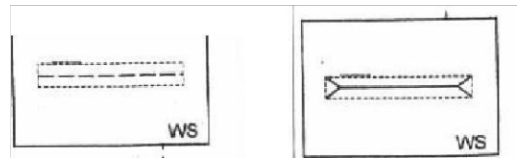
Both ends must be completed in the same shape for vertical buttonholes. They can be bar tacked or fanned. For horizontal buttonholes, the outer edge is fanned to adapt to the button shank. Bar tack the inner end for strength (9.13 d-f).



**Fig. 10.13 d-f** Steps in making button holes (vertical and d. Bound Button holes)

These are more suited to women's and children's dresses as they are more decorative than worked buttonholes. To bind the raw edges of a hole, a binding strip is used. To achieve decorative effects, the binding can be in a contrasting colour or design. To make it: pin an interfacing on the wrong side and mark the buttonhole. Cut material in a strip of about 1 ½ inch wide and 1 inch longer than the finished buttonhole length. The right sides should be facing, then work in a row of tacking stitches and then machine baste. Cut to within ¼ inch of the ends along the tacking line and cut diagonally to the four corners (Fig. 10.14a to b). Bring the binding strip through the slit to the wrong side. Fold back the strip and make an even binding of 1/8 inch wide on each of the

sides, meeting at the centre of the opening. Each side of the buttonhole should have basted binding. Any excess interfacing fabric should be removed and leave around ¼ inch beyond the buttonhole at each end.



**Fig. 10.14 a & b** Steps in working a bound button hole

#### Some key do's and don'ts:

- Make sure you create a safe place to work.
- Make sure any extension sockets or leads are on the floor, not the workbench.
- Make sure any leads, including those from sewing machines and lamps, etc. are kept a safe distance from the soldering iron.
- When working on glass, make sure there is masking tape around the edges. Make sure the room you work in is well-ventilated or there is an extractor fan. Make sure the soldering iron is switched off after you have finished working.

#### Further Reading:

- ✓ *Hand Sewing Magic: Essential Know-How for Hand Stitching--\*10 Easy, Creative Projects \*Master Tension and Other Techniques \* With Pro Tips, Tricks, and Troubleshooting by Lynn Krawczyk | Dec 4, 2018*
- ✓ *Me and My Sewing Machine: A Beginner's Guide by Kate Haxell*
- ✓ *The Sewing Book: Over 300 Step-by-Step Techniques by Alison Smith | 2019*