

Rudiments of Dressmaking Technology for Adultlearners

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Abstract

This paper on the rudiments of dressmaking technology covers descriptions of various sewing equipment, sewing machines, sewing tools, their functions, differences and basic care requirements. The purpose is to provide a reference material for adult learners who are interested in acquiring dressmaking skills for hobby cultivation and vocational functions. It emphasizes the importance and function of clothes by describing the technical skills required for converting materials/fabrics into clothing. These include the procedure for taking body measurements, explaining facets of clothing construction such as stitches, seams, fullness, neckline finishes, placket openings, hems, and fasteners. It concludes on the note that the described fundamentals of dressmaking technology is not prescriptive, but provides basic insight into the essentials of the skill-set and skill training for aspiring dressmakers. The contents thus offer a helpful guide to beginners who are poised to acquire requisite education and enter the highly lucrative profession of dressmaking.

Keywords: *skills, measurements, equipment, finishing, sizing of apparel, human body motion, sewing, fullness, construction.*

Introduction

Dressmaking is the core of apparel entrepreneurship. Its place in education is important because it develops concentration, teaches accuracy, forms a power of judgment and observation, gives scope for imagination, develops appreciation of colours, style and good taste; while training the individual towards an appreciation of good finish (Richmond, 1977). Training in dressmaking helps the individual develop expertise to distinguish a well-made garment from one that has been put together badly. Expertise in the techniques of sewing for producing attractive garments with good fit is essential and highly recommended for persons aspiring to enter couture (Jewel, 2000).

As a comprehensive technical process, dressmaking requires knowledge of fabrics, principles of design, garment making and creative skill because dresses are in reality attractive, if they fit the wearer well and has good finishing. Dressmakers are therefore expected to acquire skills needed to select appropriate equipment, colours,

fabrics, and accessories to suit individual clothing designs. More than sewing, the skillset of dressmaking involves cutting, measuring, pressing and finishing in the creative process (Labanya, Mazumdar & Vatsala, 2004). It requires various specialised tools and equipment. Knowledge about these tools is indispensable for choosing the right tools to complete each task in the practice of garment construction (Mathews, 1985).

Pattern making is basic to dressmaking. It is simply the process of interpreting garment designs and flats on broad sheets for the purpose of cloth cutting and construction. It is the blue print for fabric spreading and cutting. Patterns can be prepared by either by drafting or draping. Drafting or flat pattern making entails the drawing of patterns on paper with mechanical precision, based on body measurements. Draping on the other hand is done by laying fabric on a dress form or model according to prescribed measurements, to create toils for the purpose of dress construction. Patterns may be drafted from scratch using measurements taken from the model, or with the aid of pattern blocks or commercial patterns made using

standard sizing. Joining the pieces of cut pattern is stitching. A stitch is the complete movement of a threaded needle through a fabric, either by hand or sewing machine, to create a loop of thread. Stitches are classified into two groups namely; temporary and permanent stitches. These stitches may be constructive or decorative. The point of attachment of two or more pieces of fabric in a garment is a seam such as French seam, open seam, runner fell seam among others. In dressmaking the Neckline is an essential part of a dress. It is the outline of the bodice around the neck. They are shaped in diverse ways to get different styles and visual effects, especially in women's clothing. Round, square, V-neckline, U-neckline etc. are commonly used necklines in garment making. Fullness of material is another important part of dressmaking as it creates ease of movement and proper fit in a garment. Adding and controlling dress fullness/fit include darts, tucks, pleats, gathers.

Most garments require access points at the neckline, sleeves, waist, hips and ankles in order to be put on and taken off easily. These are provided by fasteners, which play a crucial role in dressmaking to neaten, conceal, decorate and enhance different openings in each garment. Fasteners should be selected to suit the colour, design and texture of the fabric, the style and use of the garment. There are several types of fasteners in clothing construction. Buttons and buttonholes are generally used for men's shirts, trousers etc., just as press buttons and hooks and eye are commonly used for children's dresses. Accurate body measurements are very important for obtaining best results in cloth construction. Besides good fitting, correct measurements can also contribute towards saving time in making a garment. Body measurements are useful not only for stitching the garment at home or getting it stitched, but also for buying readymade garments. Taking body measurements is a very important task. Therefore it is important to use the correct methods of taking and recording body measurements.

Sewing

Sewing is a key area of garment construction as it is the most applied method of joining pieces of materials to form clothing (O' Neill, 1991). Sewing is done either by hand or with the use of sewing machines. The earlier method of sewing by hand is not applicable to all stages of garment making. Therefore, considerable emphasis is given to machine sewing. There are several types of machines available for advanced technical and decorative sewing. Machine functions range from simple lock stitch sewing to advanced computer aided and decorative sewing. Examples include ruffling, hemming, pleating, piping, binding, darning, as well as automated buttonhole stitching and attaching fasteners. A good sewing machine is required to make good wears. Therefore, one has to be familiar with

different types of machines and their characteristic functions. Many sewing machines come in various models including industrial models, domestic models as well as portable /cabinet models. Each of these models is classified into hand machines, treadle and electric motor machines. *Hand - Operated Sewing Machine* is operated manually using a detachable handle latched on to the machine flywheel. This machine is generally slow and used mainly for domestic dress making. *Treadle Sewing Machine* is also a domestic machine like the hand operated sewing machine. It is operated with the help of a mechanical pedal stand which is driven by feet. The treadle machine is faster than the hand-operated machine. This machine comes in both domestic and industrial models as it mostly used where there is limited power supply. *Electric Sewing Machine* is the fastest sewing machine. Electric sewing machines come in all models including domestic, industrial and cabinet style machines. Electric machine function using a motion by a belt attached to an electric motor.

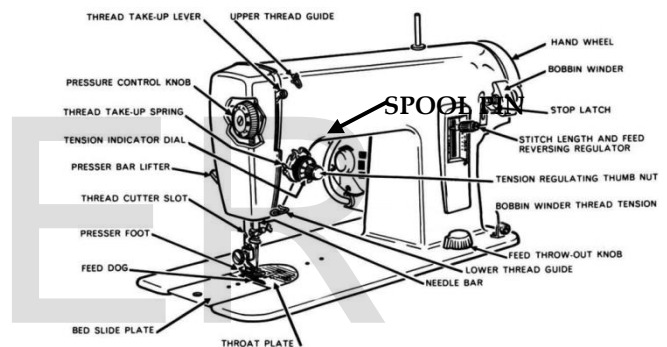


Fig. 1 Parts of a Sewing Machine

Basic Parts of a Sewing Machine and Their Functions:

Spool pin: located on top of the machine arm to hold the reel/thread spool.

Thread guide: holds the thread in position from the spool to the needle.

Tension disc: controls the pressure of the thread to ensure firm stitches

Stitch and feed regulator: tightens or loosens the stitch loop formed by the shuttle.

Presser foot: firmly holds down the cloth in position for sewing when lowered.

Presser foot lifter: this lever controls the presser foot.

Stitch regulator: controls the length of the stitch.

Bobbins winder: is used for winding thread on the bobbin.

Hand/Fly Wheel: controls the stitching mechanism in the sewing machine using the clutch or thumb screw at the centre of the wheel.

Bed/Slide Plate: A rectangular plate, which facilitates the removal of the bobbin case without lifting the machine.

Needle Plate or Throat Plate: A semi-circular disc with a hole to allow the needle to pass through it.

Feed dog: fitted firmly under the needle plate, it pulls the cloth forward while sewing.

Preparation for Stitching

In order to effectively use the sewing machine, one should properly check and prepare the machine before sewing. Preparations for use include winding the bobbin, threading the machine, setting the bobbin thread in the shuttle, tension adjustments, pressure and feed adjustments, selection of thread and needle. A perfect stitch is only formed if the thread size matches with the fabric type and needle size. Therefore, it is important to note that different fabrics require different sewing threads. While cotton threads of 20-40 size is recommended to sew light and medium weight twill and denim fabrics, mercerized cotton heavy duty thread is required to sew thicker denims. On the other hand, most poplin materials require a size 50 thread and delicate fabrics like voile use 80-150 size threads. Machine needle Selection is also dependent on fabric weight. Delicate fabrics require fine needles and dense fabrics require thicker needles. Machine Needles are available in various sizes ranging from 10-16. Thick needles often cause distress to fine fabrics if used. They puncture the fine yarns thus causing puckering of the fabric. Also, if smaller fine needles are used for heavy weight materials, the needle may break due to excess strain. The selected needles must also be paired with the appropriate thread. If a fine thread is used in a thicker needle, the stitching will be weak, as the bigger holes made by the needle are not completely filled by the fine thread. Similarly a coarse thread in a fine needle will frequently break because of the excessive friction of thread passing through the small eye of the needle. The following table 1 will be a guide to help selection of appropriate needle and thread sizes.

Fabric	Fibre	Thread	Needle	Stitch Length
<i>Finely Woven</i>	Synthetic, cotton & blends	Synthetic 60 mercerized 50	9-11	10-15
<i>Light weight woven</i>	Synthetic, cotton & blends	synthetic 60 mercerized 50	11-14	12-15

<i>Medium weight Woven</i>	Synthetic, cotton & blends	synthetic 60 mercerized 50	11-14	12-15
<i>Heavy weight woven</i>	Synthetic, cotton & blends	synthetic 60 & mercerized 50	16-18 14	10-12

Table 1: Selection of thread and needles for fabric

Common Machine Problems

It is very common to encounter a few problems while sewing. A sewing machine operator should be well equipped to deal with these problems and carry out general maintenance of the machine.

Most sewing machine problems can be traced to poor maintenance. However, minor sewing machine problems can cause hurdles in stitching. Some of the common machine problems are listed below.

- a. Tangled thread
- b. Skipped Stitches
- c. Upper Thread Breaking
- d. Lower Thread Breaking
- e. Fabric Puckering
- f. Needle Breaking
- g. Looped Stitches
- h. Uneven Stitch Length
- i. Material not feeding correctly
- j. Machine running heavily
- k. Damage to fabric
- l. Puckering on both layers of fabric
- m. Puckering on under layer only

Care and Use of Sewing Machines.

A well-built sewing machine will sew perfectly for many years if given proper care. The sewing machine requires basic maintenance such as regular cleaning, oiling and lubricating to ensure satisfactory sewing and long life. Machines may need to be serviced from time to time. Regular cleaning of the machine is very important because sewing machines are prone to dust and lint from fabrics, accessories and various other sources in the working space. A soft nylon brush or a narrow paint brush can be used to remove lint and dust from the bobbin case and surroundings. Regular oiling is essential. It will protect the machine from rust and dust that is built up during regular use. Traditional sewing machines require weekly oiling and general lubrication if used daily. However, machines that are not used as frequently may be lubricated once a month. Industrial machines on the other may be oiled few times a

year as industrial sewing machines have a self-lubricating mechanism which ensures sufficient engine lubrication through many months. Other sewing machine maintenance and care measures are:

- i. Sewing machines should only be serviced by expert mechanics
- ii. The machine should never run with a lowered presser foot except if stitching fabric. This will damage the feed dog.
- iii. Dressmakers must avoid bad quality of threads. Cheaper threads can be harmful to sewing machine as it produces more lint that can cause problems to the machine.
- iv. Electric sewing machine should be unplugged when not in use.
- v. When using the machine, always start slowly to test the threading.
- vi. Machine needles should be changed as often as possible and checked for defects or blunt edges that can damage the machine.

Dressmaking Tools

Clothing construction tools are classified into six categories namely sewing and embroidery tools, cutting tools, measuring tools, marking tools, pressing tools and general tools.

Sewing and embroidery tools include *Hand Sewing Needles* which are used for stitching fabrics and materials by hand; either for decoration, marking, or to fasten pieces of cloth together. They range in sizes from the very fine 9 to the heavy 18, and are usually made out of steel. *Sewing Machine Needles* are fitted to sewing machines to automatically affix stitches onto fabric pieces. They also come in sizes 9 to 18. As mentioned earlier, the size of the needle should conform to the weight, thickness, and type of fabric.

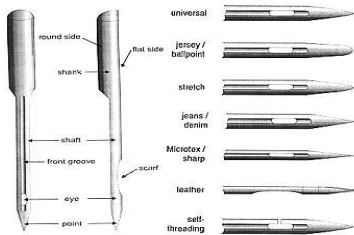


Fig. 2 Various Sewing machine needles

Type	Description
Universal	Intended as an all-purpose needle, preferred for woven fabrics where a sharper needle could ruin the fabric. Similar to a ballpoint needle but tapered to allow the needle to slip through without producing a run.
Embroidery	These needles come with an extra-large eye and a specially shaped scarf to prevent embroidery thread from shredding.
Ballpoint	Similar to a universal needle but has rounded

edges and is not tapered the same way. Intended for closely knit fabrics where the rounded tip will push the weave out of the way rather than cut through it. Using a regular point needle on knit fabric will result in skipped stitches and fabric damage, causing it to curl or pucker.

Jeans/ Denim

Intended for tightly woven cottons such as canvas. Has a strong, sharp point and very slender eye.

Wing

Needle has distinct "wings" on either side of the eye which hold the fabric open. Often used on hems and borders, and for decorative finishing. A larger size needle will leave a larger hole in the final piece of sewn fabric.

Leather

These have a distinct triangular point to help the needle make a large, clean hole in non-woven materials like vinyl.

Quilting

Designed with an extra strong shaft and with a tapered point to penetrate multiple layers of woven fabrics without breaking and without shredding either the thread or the fabric being sewn.

Microtel/ Silk/Sharps

Also known as silk needles, they are sharper and more slender than the universal needle. Suitable for fine woven fabrics, but also compatible for quilting and appliqué.

Table 2- Types of Sewing Machine Needles

Pins are very important in sewing and embroidery as they provide speed, convenience and support for good workmanship. There are several types of pins for different fabrics. Dressmaker pins are the most used because they work well with many fabrics. Ball point pins are used for fine knit or stretch fabrics. Silk pins are used on delicate fabrics and fine weaves. The silk pin is a very slender steel pin with a needle point. *Thimble* is a small metal or plastic cap-like tool worn to protect the finger and push the needle in while sewing by hand. There are two types of thimbles: open-ended thimble and closed-ended thimble also known as dressmaker's thimble (Fig.2b).

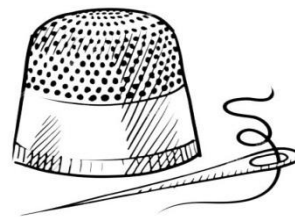


Fig. 3 Dressmakers Thimble and a hand needle

Stiletto is a sharp pointed instrument for punching holes in material and forming eyelets in belts and for embroidery work. *Bodkin* is a flat needle with a blunt end and a large

eye for inserting and threading elastic bands or tapes. *Bent-Handle Shears* It is important to note that shears differ from scissors. Shears have one small ring handle for the thumb and a large ring handle for the second, third and fourth fingers. They are usually 8 to 10 inches long (Fig. 2c) and are used for cutting most fabrics.



Fig. 3b Bent handle shears

Scissors are used for light cutting, clipping corners, and trimming. They have round handles for the thumb and pointing finger. They should be held in such a way that the wider blade is above the narrower blade.



Scissors

Pinking Shears are similar to the bent shears but with serrated edges. They are used to cut zigzag edges in materials.



Fig. 5 Pinking shears

Button Hole Scissors These can be adjusted so as to cut button holes in any size required. They are useful if one needs to make many button holes



Fig. 5 Buttonhole scissors

Electric Scissors are also known as power scissors, can be more productive than the manual counterpart. However, for detailed or precise cutting, such as curves or intricate patterns, manual scissors will most likely prove to be easier, faster, and produce better results.

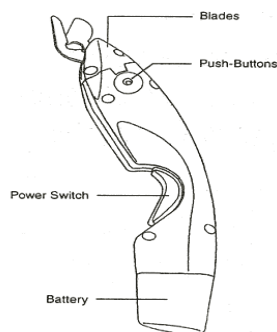


Fig. 6 Electric scissor

Measuring Tape is a common measuring tool which consists of a long strip/ribbon with linear-measurement markings and a metal stopper. Its strip may come in form of cloth, plastic, or fibre glass.

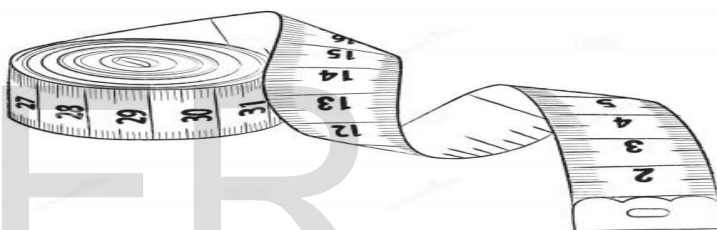


Fig. 7 Measuring tape

Rulers are useful for pattern drafting in the sample room. Tailoring rulers may be made of wood, plastic or metal. It is useful to have 2 rulers: one is 1 inch wide and 6 inches long and the second is 2 inches wide and 18 inches long. *L Square* This is an L-shaped metal ruler with an accurate right angle corner used to draw lines at right angles when drafting patterns.



Fig. 8 L-square

Tracing Wheel is used for transferring pattern markings to fabric. It is used alongside tracing paper.

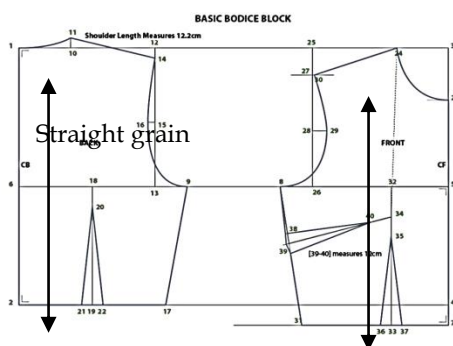


Fig. 9 Tracing wheel

Tracing Paper a translucent paper used with the tracing wheel to transfer pattern markings to fabric. *Tailors Chalk* is a thin flat piece of wax, hard chalk or soapstone used to transfer markings to fabric. Once the garment is constructed, the garment is finished and neatened by pressing and trimming. Pressing is one of the important aspects of clothing as it goes a long way to determine the appearance of the final garment. Therefore, it is essential for every dressmaker to have good pressing equipment. *Steam Iron* is a pressing iron with an adjustable temperature control and a compartment holding water which is converted to steam by the iron's thermostat and released onto the fabric through the soleplate. *Ironing Board* is a long porous board covered with soft cloth, foam or fibre and having adjustable folding legs. Its porous surface allows for the easy passing of steam thus straightening creases on fabric. Where there is no ironing board, a tailor can use an ordinary table covered with thick sheets. *Sleeve Board* is a miniature version of an ironing board used for pressing sleeves and small details. *Press cloth* is a piece of cloth or silicone mesh used to protect delicate fabrics and prints during pressing. Cloths used should be colourfast and thoroughly washed or boiled to remove any sizing. *Dress Form* is a padded body form used for designing, draping and fittings. Dress forms may be made of wood, cardboard, plaster of Paris or reinforced plastic. *Seam Ripper* is a small tool used to remove unwanted stitches in a garment. *Loop Turner* is a long wire with a latch hook, suitable for turning out fabric tubes such as straps, belts and tunnel eyelets. *Awl* is a small, sharp-pointed tool used to punch small, round holes for marking on paper or leathers. *Cutting board or table* is a table of convenient height and size used for spreading and cutting fabric.

Pattern Blocks

A pattern block, also called sloper, is the basic foundation for all flat pattern drafting. Slopers are created based on key body measurements and garment sections. The proper fit and proportion of each garment is first established on paper, in the most basic form, before the addition of style. Pattern blocks may be either drafted from scratch or bought already done.



SG

Fig. 10 Pattern Block

Paper patterns contain name of the block e.g. bodice or skirt, grain line on each pattern piece, Size e.g. 32, 34, 36, 38, among others, pattern piece e.g. bodice front or back, cutting information e.g. cut 1, cut 2, cut on fold, notches - marks needed to help in assembling of garment sections and seam allowances. Paper patterns ensure that various garment styles can be prepared and stored for ease of access and use to produce styles developed into patterns and easily cut for mass production without wasting much time, Paper patterns may serve as flat dress forms to guide a tailor in the making of a new garment or pattern. Inexperienced dressmakers may successfully cut fabrics using complete paper patterns, without any prior pattern drafting skills.

Stitches, Seams and Seam Finishes

Stitches classified as temporary stitches and permanent stitches. *Temporary* Stitches are constructive stitches usually sewn to hold pieces of fabrics together before *permanent* stitches are made. It is recommended to use a contrast colour thread when making temporary stitches. They are two types of temporary stitches namely even basting and uneven basting. Even basting is a series of straight stitches of equal length on both sides of the material sewn by hand or machine to hold two or more materials together temporarily, or to mark a stitching line.

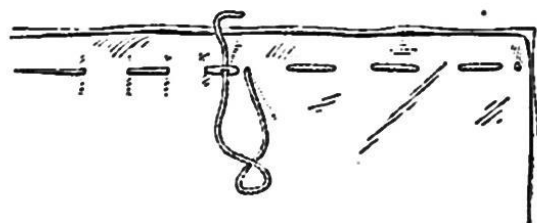


Fig. 11 Even basting

Uneven basting is like the even basting, but the stitch on one side of the fabric is at least twice the size of that on the other side. The size of the stitch is usually 1/2 inch.

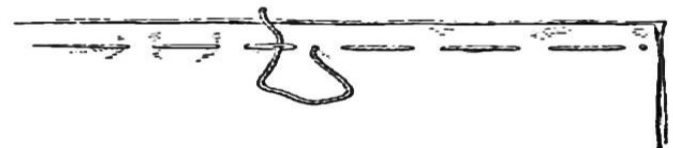


Fig. 12 Uneven basting

Permanent stitches are permanently sewn onto fabrics or materials for the purpose of construction or decoration. Generally, the thread is chosen to match the colour fabric

under construction. Permanent stitches include running stitch, backstitch, combination stitch, and hemming.

Running stitch is the simplest form of stitch which is used for permanent sewing hand seams such as tucks, gathering, shirring, quilting and mending. It is similar to even basting, but the stitches are much smaller in size. The stitches should be straight, fine and evenly spaced.

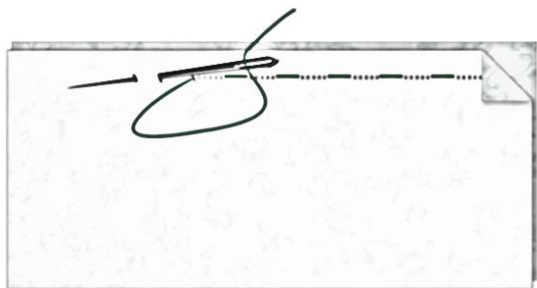


Fig. 13 Running stitch

Backstitch is also done by hand. It is done by sewing one stitch length backward on the front side and two stitch lengths forward on the reverse side to form a firm line of stitching on both sides. Backstitch is strong and it is sometimes used in place of machine stitching.

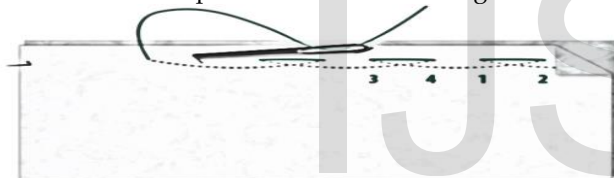


Fig. 14 Back Stitching

Run and back or combination stitch is best described as running stitch with an occasional backstitch. This stitch is faster than the backstitch and stronger than the running stitch.

Catch Stitch or Herringbone stitch involves sewing small, overlapping loops with the needle facing the opposite direction of the stitched line. Herringbone stitches may be decorative or functional. This stitch is suitable for hemming stretch fabrics.

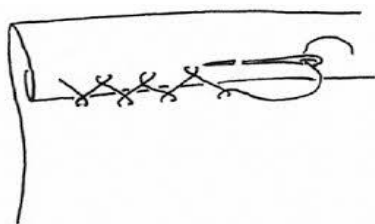


Fig. 15 Herringbone Stitching

Blind stitch is sewn in such a way that the thread is invisible, or nearly invisible. Mostly used for hemming trousers and suited garments.

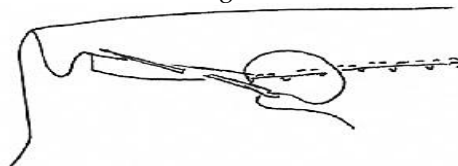


Fig. 16 Blind Stitch

Fell Stitch is a strong and flexible hem. It crosses over the folded hem onto the garment in inconspicuous loops on the front side and crosses over the folded edge on the backside of the garment.

Hemming stitch is the most utilitarian of the hem stitches, as it is not meant to be invisible on the inside of the garment. But it can be done relatively quickly for a hand-sewn stitch.

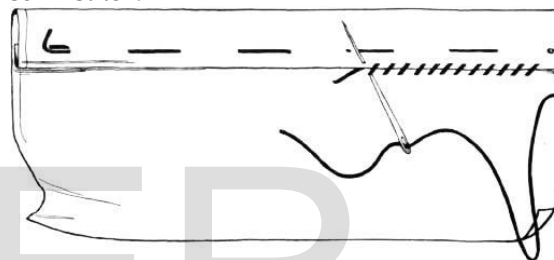


Fig 17 hemming

Seams

The purpose of a seam is purely functional or constructional. Seams in a dress may be conspicuous or inconspicuous. There are two main classes of seams; flat seams and ridge seams. Flat seams include Plain seam, which is used seam in clothing construction is suitable for most fabrics. They are usually inconspicuous and are used for side seams and under arm seams.

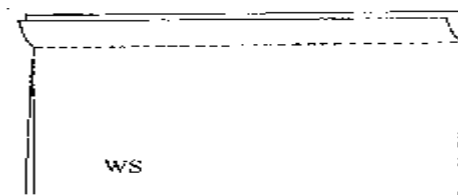


Fig. 18 Plain seam

Lapped seam is commonly used for joining a gathered or an altered fabric to a straight edge as in a yoke. One fabric is laid on top of another with its seam allowance turned to the wrong side. The two parts are sewn with right sides facing and matching the fold to the seam line.

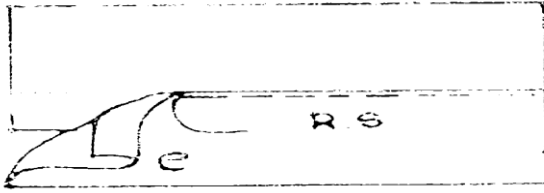


Fig. 19 Lapped seam

Slot seam is a variation of lapped seam and is often used down the centre front or centre back of skirts, coats and dresses. A decorative slit is formed by bringing two folds together and stitching them onto an underlying piece especially when a different coloured fabric is used for the backing piece stitched in between the two pieces of fabric, which are lapped onto it (Fig.4.2c).

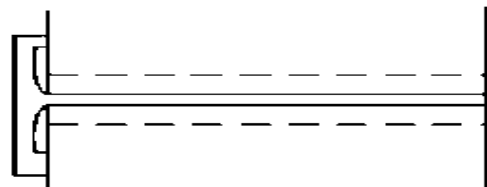


Fig. 20 Slot seam

Ridge Seams such as the French seam, is used on transparent and light weight fabrics, especially on baby clothes and delicate blouses. It is a neat and durable finish as the raw edges are completely enclosed.

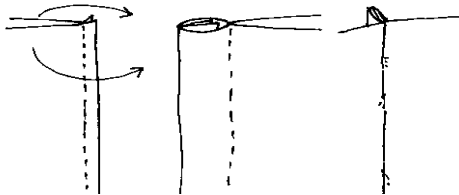


Fig. 21 French seam

Flat and fell seam is a seam in which the edges overlap by extending a cut or folded edge over another cut edge to the width of the seam allowance. This is then sewn with two rows of stitching. This seam is used principally in finishing the seams of tailored garments and is made on the right side of the garment.

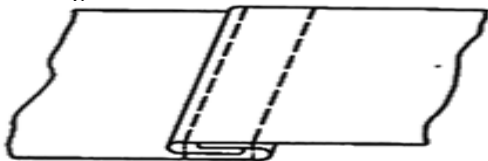


Fig.21b Flat and fell seam

Bound seam is formed by folding a separate binding strip over one or more plies of material and sewing them

together. This seam is suitable for necklines, hems, sleeve plackets and quilt edges

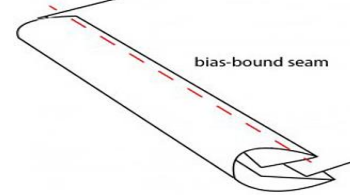


Fig. 22 Bound seam

Seam finishes provide a neat appearance to the inside of a dress. They also prevent fraying of the raw edges thereby making the seams more durable. Types of seam finishes are *Pinked finish*, which is done by shaving raw edges of seams with pinking shears. This is not a suitable finish for fabrics that unravel badly.



Fig 23 Pinked seam finish

Stitched Edge finish is mostly used on unlined skirt and jackets with ample seam allowance. One-quarter of each seam edge is turned in and top stitched close to the fold without catching the dress/garment. This is a bulky finish and is not suitable for deeply curved seams.

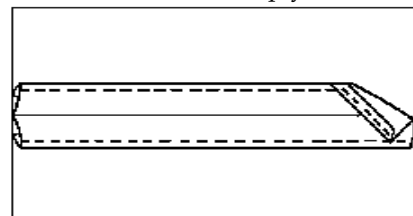


Fig. 24 Stitched Edge finish

Double stitch finish is done with an extra line of stitching sewn in to add durability and prevent fraying (Fig.4-3c). This is usually done on closed and pinked seams. Double stitched edge finish is not suitable for bulky fabrics.

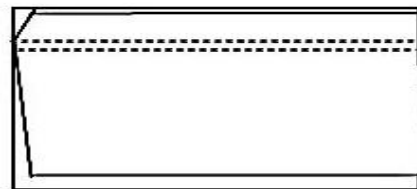


Fig. 25 Double stitch finish

Overcast finish is a common method used for both thick and thin materials that fray easily. It is also suitable for

narrow seams and also for seams that receive extra strain such as armholes and waistlines.

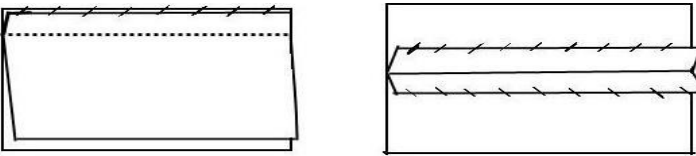


Fig. 26 Overcast seam finish

Herringbone finish neatens the raw edges of heavy materials like flannel. It also holds down the turning that makes the seam flat to avoid bulkiness. After pressing the seam open, herringbone stitches are worked on the two raw edges, catching the garment in the process.

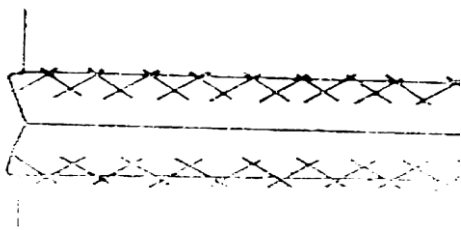


Fig. 27 Herring bone finished seam

Bound seam edge finish is pressed open and the bias binding attached to both the seam edges

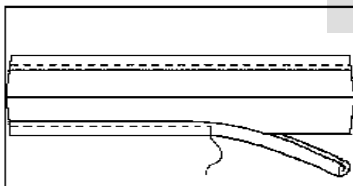


Fig. 28 Bound seam edge finish

Neckline Finishing

A neckline may be finished with a facing, binding or a collar depending on the design of a garment and fabric. Necklines are generally curved and they tend to stretch during handling. It is therefore important to note that before working on the neckline, a row of stay stitching is to be sewn in. It is equally important to note that attachments such as bias tapes or facings should be cut in bias to accommodate elasticity as well as take the shape of any curved edge. *Facings* are used to provide a neat finish to the raw edges in a garment's neckline to support it. There are two main types of applied facings - bias facing and shaped facing. Shaped facing can be of any width, but bias facings are usually 1/2 inches wide.

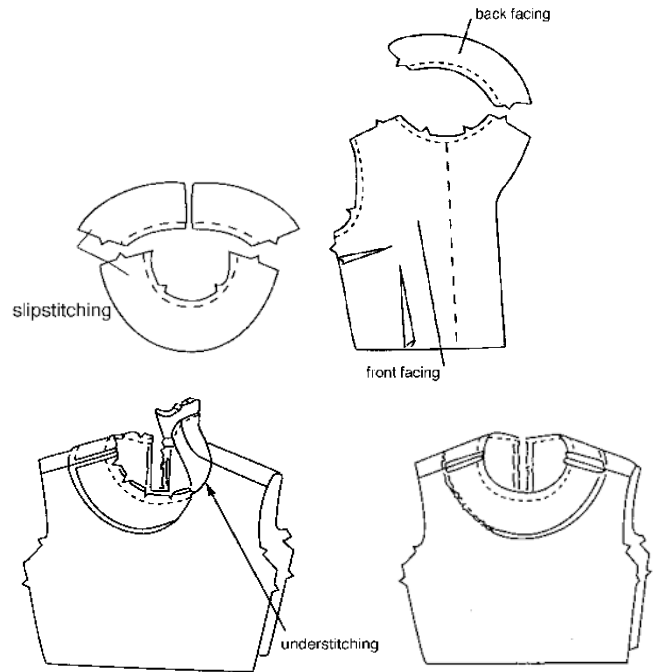


Fig. 29 shaped or fitted facing

Binding is used to finish and strengthen raw edges and to add a decorative trim to the neckline of a dress. Neckline binding is done using cloth cut on the true bias of a fabric which falls on a diagonal line at 45° to the lengthwise and crosswise grains. Bias is also called cross piece. Bias binding adapts well to straight, curved, gathered and irregular edges because it has the maximum elasticity needed. There are two kinds of bias bindings: *Single binding* and *doublebinding* (or French binding).

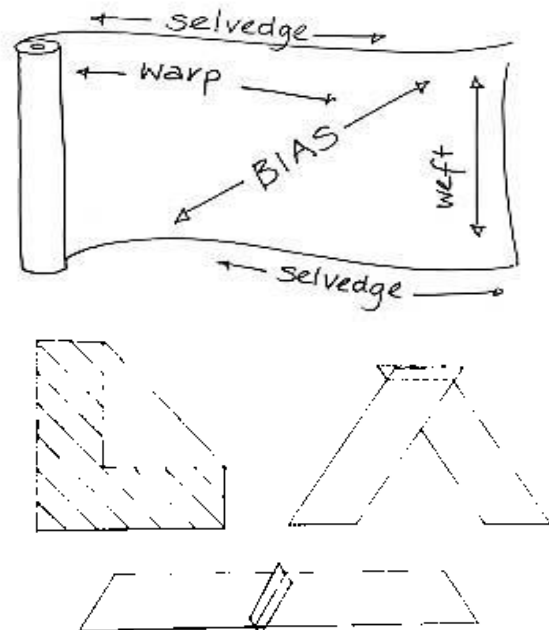


Fig. 30 preparation of bias tape; marking, cutting and joining

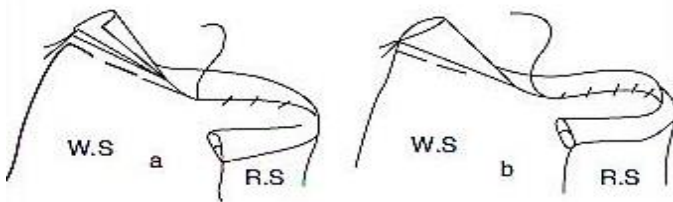


Fig. 31 Single and double bias binding

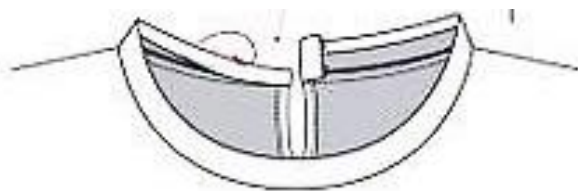


Fig. 32 Bias binding neckline

Collars may be fastened around the neckline of some garments to add structure, style and accessibility. A collar is differentiated from other necklines, by being made from a separate piece of fabric and installed. There are three basic types of collars; flat, standing, and rolled. The flat collar lies flat on the shoulders of the garment while the standing collar offers a high neck finish standing around the neck and not lying on the shoulders. The Full roll collar has its fall and stand at about the same height at centre back causing it to stand around the neck and then fold or roll over.

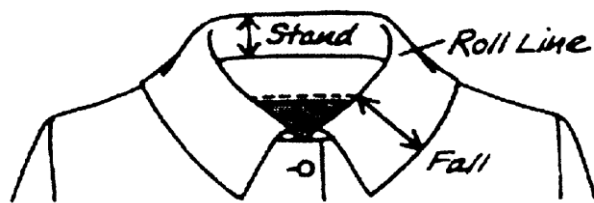


Fig. 32 A Shirt Collar

Fullness

Tucks are used to add fullness and fit to dresses during construction. A tuck is a fold of fabric stitched in place on the right side of a garment as a means of shaping the dress to body form, to add bulk or as a decorative effect. Tucks add body to thin fabrics and textural interest to plain fabrics. Tucks are also used to shorten a finished garment, especially a child's garment, so that it may be lengthened

("let down") as the child grows by removing the stitching holding the tuck in place. Different types of tucks are *Pin tucks*, which are very narrow ornamental folds that are sewn into fine blouses and baby clothes to add texture. They are usually less than 1/4 inches in width.

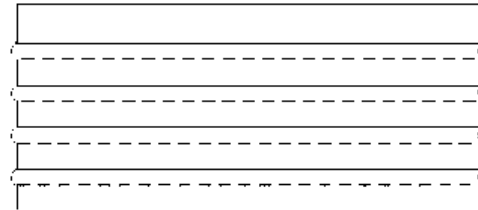


Fig. 33 Pin tucks

Piped or Corded tucks are narrow tucks with cords, yarns or heavy threads added to the edge. Corded tucks are mostly used for ornamental purpose and are generally suitable on thick fabrics.



Fig. 34 Piped or corded tucks

Shell or scalloped tucks is a very a decorative tuck made by hand or machine. Shell tucks create a delicate round edge finish for both lightweight knits and woven fabrics.

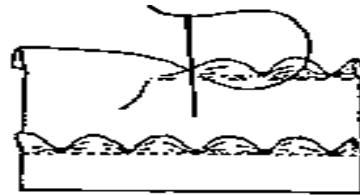


Fig. 35 Shell or Scalloped tucks

Crossed tucks are achieved when rows of tucks are stitched along the fabric in both horizontal and vertical directions, the finished work is called cross tucking.

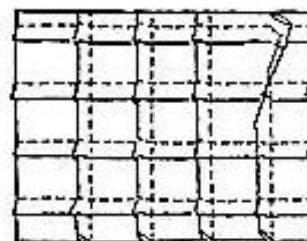


Fig. 36 Crossed tucks

Pleats are larger folds of fabric that provide fullness for human body motion and style in dressmaking. They are similar to tucks, but are significantly larger and are seldom stitched all the way down. Pressed pleats give a smooth, slimming line to a garment, whereas, un-ironed pleats provide a softer and fuller shape. The basic types of pleats in clothing construction are knife pleats, box pleats, accordion pleats, inverted pleats and rolled pleats. *Knife pleats* are sharply pressed pleating of equal width, facing one direction. The main function of a knife pleat in a tailored garment is to provide fullness at the bottom of the garment.

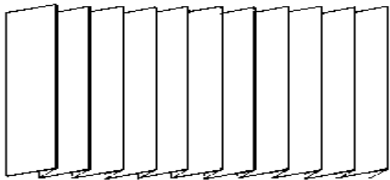


Fig. 37 Knife pleats

Box pleats are two knife pleats turned away from each other (one to the left and one to the right) to form a box pleat. They are used quite often for uniforms.

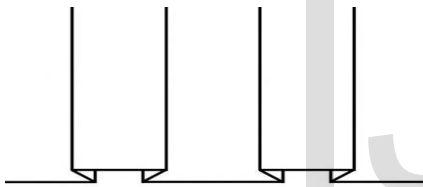


Fig. 38 Box pleats

Inverted pleat is the opposite of a box pleat. It is made up of two knife pleats turned towards each other so that the folds meet in the middle on the right side of the garment.

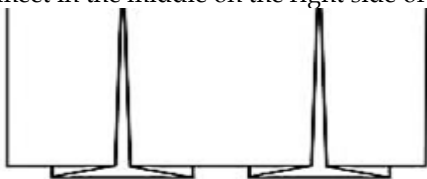


Fig. 39 Inverted box pleat

Gathering is a basic sewing technique that shortens the length of a piece of fabric, forming soft folds or pleats with the fullness. These folds are made by pulling one thread, causing the fabric to cluster together. This is an effective and decorative way of distributing fullness in a garment. Gathering may be done by hand or using a sewing machine.

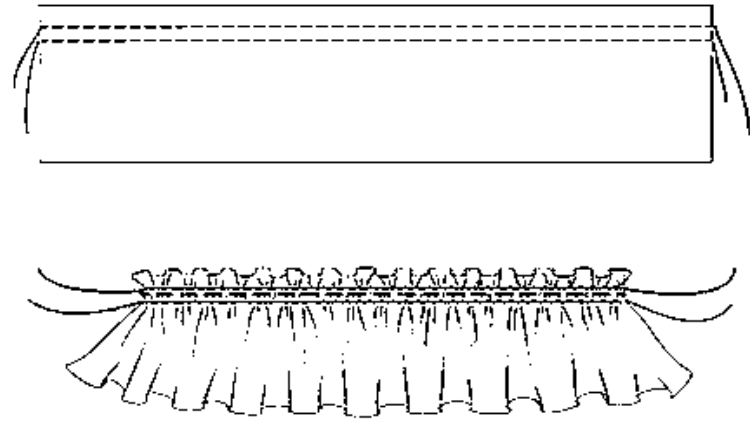


Fig. 40 Gathering

Shirring or Gauging is simply gathering made in cloth by drawing the material up on parallel rows of short running stitches. Several rows of gathers are stitched side by side to achieve a decorative finish.

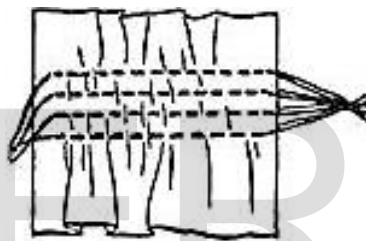


Fig. 41 Shirring

Smocking is created by gathering a section of the material into tight pleats with parallel elastic stitches in an ornamental pattern. It is used to hold fullness or to add texture and surface interest to a garment. Smocking is suitable for soft and flat-faced fabrics such as voiles, satins and crepes. All the smocking stitches are worked from left to right using good quality embroidery threads of suitable colours. Common stitches used for smocking fabrics are outline stitch, cable stitch, wave stitch and honey comb stitch.

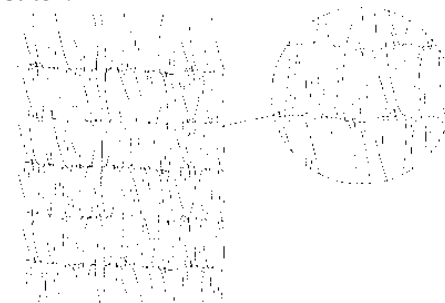


Fig. 42 Smocked fabric

Frills or Ruffles are ornamental gathering or goffered frill of cloth cut and placed to produce fullness. The gathered edge of a frill can be concealed in a seam, facing, binding or wide band

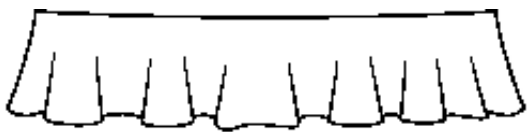


Fig. 43 Frills or Ruffles

Godets are extra pieces of fabrics in the shape of a circle which is set into a garment, usually a dress or skirt to add width and volume. Adding a godet to a piece of clothing will form a flare, providing a wider range of motion for the wearer.

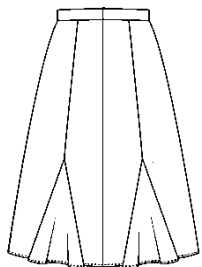


Fig. 44 Godets in a panel skirt

Darts are made with a folded wedge of fabric that is tapered and stitched down for the purpose of shaping a flat piece of fabric or garment to the curves of a figure. In clothing construction, darts generally serve a functional purpose. However, they may also serve as decoration and style in some garments. Darts may be pressed or left unpressed. Types of darts are *plain darts*, which is the most common type of dart in dressmaking. It is usually found around the bust, waist and hips. This type of dart can be manipulated and altered to make different design elements that provide fullness to natural body curves. Examples of plain darts include princess seams, pleats, and other constructional seams that are found in the bust and hip parts of clothing patterns.

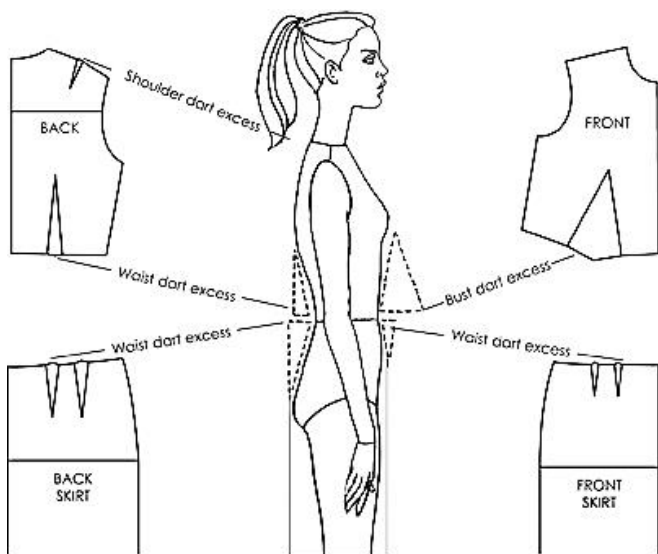


Fig 45 Darts provide fullness to natural body curves

Bust darts start at the side seam of a garment and extend towards the apex of the bust. This dart is responsible for fullness of the bust area of the bodice of a garment.

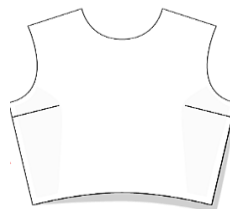


Fig 46 Bust Darts

French darts are a type of elongated bust dart that start at the side seam, down near the waistline, and end up near the bust point.

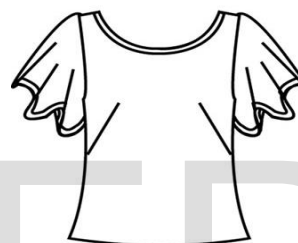


Fig 47 French Darts

Double-Pointed Darts are extended darts with two points; one point toward the bust and the other toward the hip. Double pointed darts are useful in the construction of dresses, fitted jackets

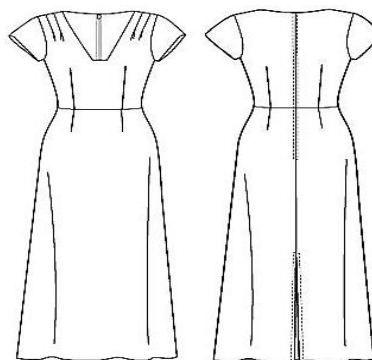


Fig 48 Double-Pointed Darts on Dress

Curved darts are used when the straight line of a basic dart does not provide enough contour to fit your shape. Curved darts can be stitched slightly concave or convex depending on the desired shape.

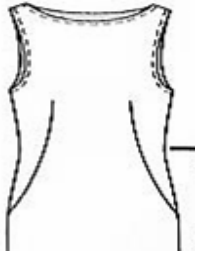


Fig 49 Curved Darts

Fasteners

Fasteners provide access to dresses through dress outlines such as the neckline, waistline, cuffs and hems. These include *hooks and eyes* which comprise a metal hook that catches on a metal eye. Hooks and eyes are small but comparatively strong fasteners. There are several types of hooks and eyes, each designed to serve a particular purpose. Hooks and eyes are the smallest of all the types and are used primarily as supplementary fasteners for example a hook and an eye at the top of zipper placket. Special-purpose hooks and eyes are larger and heavier, which can with stand more strain than those of the general purpose type. The hook is always sewn on to the back of the overlap and positioned so that the end of the hook does not extend further than the edge of underlap of the garment. In some cases, a thread eye can be used as a hook and eye substitute for a metal eye. A thread eye is not as strong as a metal eye and it should not be used at places where there is much strain.



Fig. 50 Hooks and eyes (metal)

The *thread loop* is the fabric or thread equivalent of the metal eye of the hook. It is an inconspicuous fastening which is most often found at the neck edge of collars, sleeves and bodice of some women’s wear and may be used with either hooks or buttons. Thread loops can also be used to fasten men’s clothing. These small closures are arranged in rows and they mostly help in distributing the stress on seams. A *button* is a small knob or disk which can be secured to a garment to be passed through a buttonhole or loop as a fastener. Buttons are both functional and decorative as so, must be selected carefully to suit both the weight and colour of the fabric. There are two types of buttons: Buttons with holes, shank-type buttons. Buttons with holes are normally flat or concave with two or four sew through holes. Shank buttons on the other side, have a hollow protrusion on the back through with which thread is sewn

to attach the button. Buttons may be made of fabric, bone, glass, metal, plastic etc. A good example of shank button is the classic wonder button. Other commonly used buttons are; link buttons and covered buttons.

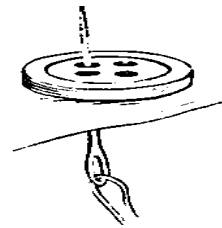


Fig. 51 Buttons with holes



Fig. 52 Shank Buttons

Buttonholes are made on the overlap section of the garment opening in line with the buttons on the underlap. Buttonholes can either be hand worked, machine worked or bound buttonholes. The method you choose for a garment will depend on the design of that garment, the fabric and your ability to sew.

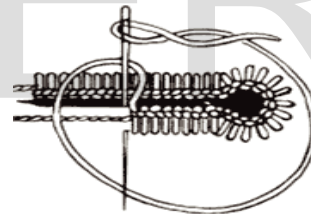


Fig. 53 button hole

Press Buttons or Snaps are small fasteners having less holding power than hooks and eyes. It is best to use them where there is not much strain on the opening. Each press button has two parts - a ball and a socket. General purpose press buttons range in size from fine to heavy.



Fig. 54 Snaps/press buttons

Body Measurements

Points considered while taking measurements and sizing of apparels:

1. A good quality measuring tape should be used for taking body measurements.

2. Measurements should be recorded clearly in lasting stationary.
3. Person being measured should stand straight, but in a natural pose and preferably in front of a mirror.
4. Loose fitted garments should not be worn while giving measurements. A proper order and certain sequence should be followed in taking the measurements to make it more systematic.

Where and how to take measurements:

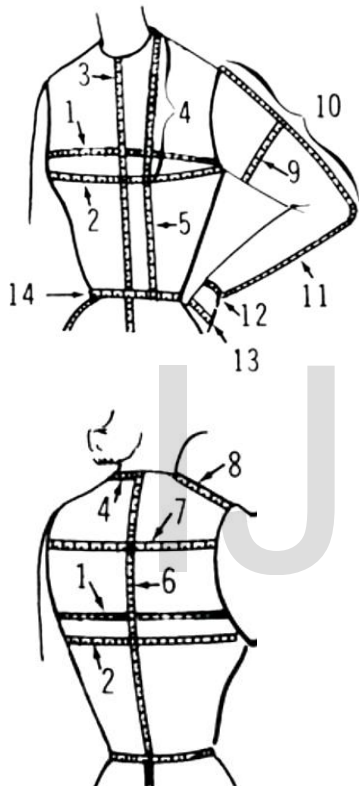


Fig. 55 Locations for taking upper body measurements

Upper bodice measurements:

1. High bust: measure around back and chest just above bust, keeping tape parallel to the floor across back.
2. Bust: measure over the fullest part of bust.
3. Centre front bodice length - measure centre front from base of neck to waistline tape.

4. Length from centre back neck to tip of bust - measure from tip of bust around neck to tip of other bust and divide the measurement into half.

5. Length from centre back neck over bust to waistline - measure from waistline over tip of bust around neck over other bust to waistline.

6. Centre back bodice length - measure centre back from base of neck to waist line tape.

7. Back shoulder width - 4 inches below base of neck at centre back, measure distance from armhole to armhole, keeping tape parallel to floor and arms relaxed at sides.

8. Shoulder length - neck to arm socket - measure shoulder length from base of neck to arm socket.

Sleeve measurements:

9. Upper arm circumference - with arm bent and fist clenched, measure around fullest part of the upper arm.

10. Arm length - shoulder to elbow- with arm bent, measure from arm socket to elbow.

11. Arm length - shoulder to wrist - with arm bent, measure from arm socket over elbow to wrist bone.

12. Wrist circumference - measure around wrist below wrist bone

13. Hand circumference - touch thumb to little finger, then measure at the position of greatest circumference.

Lower Body Measurements:

14. Waistline - measure waist circumference. Allow enough ease for comfort in wearing finished garment.

15. High hip - measure high hip circumference 3 inches below waistline tape. Keep parallel to floor

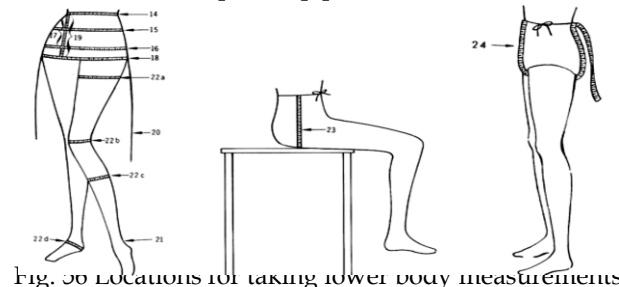


Fig. 56 LOCATIONS FOR TAKING LOWER BODY MEASUREMENTS

16. Hip at fullest part - measure fullest part of hip keeping tape about 7 inches down from waist and mark this point midway between side and centre front tape parallel to floor

17. Waist to fullest part of hip – measure from waistline tape to hip as determined in step 16.

18. Thigh – slip tapeline down to largest measure of thighs, keeping tape parallel to floor.

19. Waist to thigh – measure a distance from waist to thigh as in step18.

20. Skirt length – measure from waist to floor at centre front, centre back, right side and left side. Subtract the number of inches skirt is to be worn from floor. Add hem allowance as needed.

21. Trouser length – measure from waistline alongside seam to desired length for pants.

22. Leg circumference – measure the fullest part of thigh, bent knee ,calf, and instep.

23. Crotch depth– Sit on flat chair, measure from waist to top of flat surface.

24. Crotch length–measure from centre front waist of body, through crotch to back waist.

International Measurement Charts

UK SIZE	4	6	8	10	12	14	16	18	20	22
Bust	32	34	36	38	40	42	46	49	54	58
Waist	24	26	28	30	32	34	38	42	46	50
Hip	34	36	38	42	45	46	48	52	56	62

Table3.Women’s Standard Measurement Chart (in inches)

BASIC	X S	S	M	L	XL	XXL				
UK	4	6	8	10	12	14	16	18	20	22
US	0	2	4	6	8	10	12	14	16	18
EUR	32	34	36	38	40	42	44	46	48	50
AUSTRAL IA	4	6	8	10	12	14	16	18	20	22
JAPAN	3	5	7	9	11	13	15	17	19	21

Table4. International Women’s Size Chart

Conclusion

The foregoing description of rudiments of dressmaking technology is not exhaustive of the complexities associated with the dressmaking skillset. It is therefore not prescriptive, but clearly provides a guide for beginners who have vested interest in acquiring dressmaking education and skill training.

Recommendation

Intending and prospective dressmakers should focus on the basics presented in this work and make conscious efforts to deepen their knowledge and skills through further explorations and continuous practice, to accomplish personal, group and societal goals/expectations.

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