Chapter VI

THE CUTTING OF MATERIALS AND MAKING OF FOLDS, PIPINGS, AND BOWS, ETC., ON THE CROSS

IF cutting is to be done successfully, it is necessary that the cutter shall know something about the weaving of the materials that are being handled. In the weaving of simple goods the warp-threads, which are the stronger ones, are the first laid in the loom; the weft-threads, being softer and finer, are then woven into the warp-threads by means of a shuttle.

The shuttle turns over the warp-threads at the edges of the goods, and as it travels to and fro across the width of material and over both edges, it forms a "self edge" or selvedge running the length of the piece of stuff. This selvedge way is therefore the stronger one and should bear the greater strain in wear.

The *twill* or *grain* in materials runs diagonally across the goods. Silks, mourning crape, and other materials are woven with a twill or grain. Velvet, velveteen, and other materials with a cut pile, are shaded light or dark according to the way the pile lies. The smooth way, or the direction in which the pile lies, is lighter than the way against the pile. The cloth should be so cut as to show the darker shade, which is the richer one.

CUTTING ON THE CROSS.—Material is often cut on the cross for millinery purposes, because if so cut it gains elasticity, and can be strained to fit smoothly over edges and curves. The material can also be folded and draped much more softly and gracefully than if cut on the straight. The "cross" is obtained by cutting diagonally across the warp- and weft-threads of the material (*Fig. 1*) where, as will be seen, the distances A–B and A–C are equal. Incidentally a perfect cross-cut so made leaves a "corner" of material which is often in demand for draping crowns, etc.

To cut a crossway-strip, fold the material from B–C and cut along the fold. Measure the width of the strip required from D to E, fold again, and cut from F–G. If the width measurement is made from C–F or from B–G the piece cut will be too narrow. When cutting twilled material always fold across the twill (*Fig. 1*). If cut along the twill very little elasticity is gained, and the material is liable to curl. As millinery materials are usually 18 in. to 36 in. in width, several cross-cut pieces of the same width are often required, and they must be joined to obtain sufficient length for the process in hand. When the joining is being done one must take care that the "shade" in the case of velvet, and "twill" in the case of silk, lies on every piece in the same direction (*Fig. 3*).

CUTTING TO SHAPE.—Paper patterns are usually placed on the material as a guide when pieces are required to be cut to a certain shape, as, for instance, when the covering for a hat or a bonnet is needed. The cross, warp, weft, twill and shade, all play important parts, when cutting to shape or pattern, but this will be considered in a later chapter where the covering of shapes is dealt with.

Material is very seldom cut on the straight or selvedge way, and the fabrics so dealt with are thin piece-chiffons, ninons, lisses and muslins, which are too flimsy for cross-cutting. Large bows are often made of these straightway strips. When cased "Liberty" hats are in question, the selvedge way of cutting is sometimes considered to be preferable as the long strips required for brim and crown-band can be cut in one piece and more than one join be avoided. Materials are cut the weft way for making rosettes, pleatings, etc., when the goods are too flimsy to admit of cross-cutting.

Making Folds, Pipings, Bows, etc., of Materials Cut on the Cross

Folds are made of velvet, silk, satin, crepe, lisse, chiffon, and many other materials that are constantly coming on to the market.

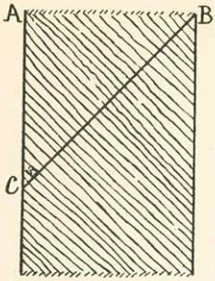

Fig1

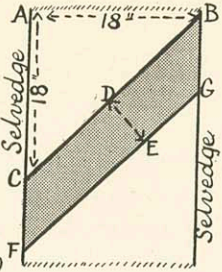

Fig2

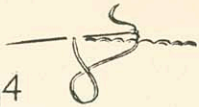

Fig4

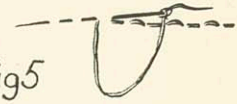

Fig5

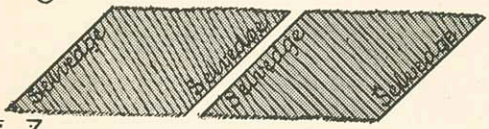

Fig3

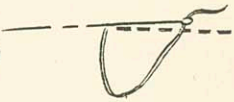

Fig6

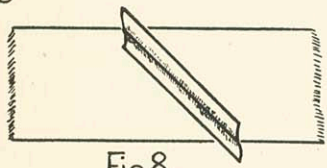

Fig8

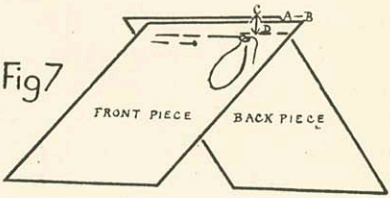

Fig7

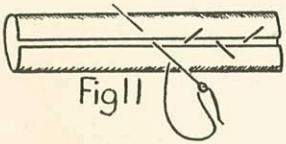

Fig11

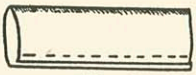

Fig9

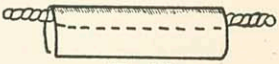

Fig10

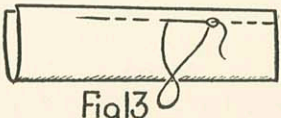

Fig13

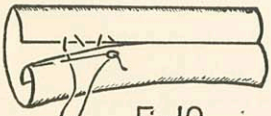

Fig12

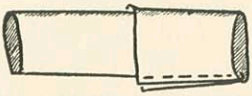

Fig13a

JOININGS.—These materials are usually cut on the cross, the strips being from ½ in. to 1 in. or more in width, then joined to the length required by (*a*) back-stitching (*Fig. 4*), (*b*) run and back-stitching (*Fig. 5*), or (*c*) running only (*Fig. 6*). A very fine needle and either silk or cotton should be used, and great care be taken not to pucker the material. Velvet, satin, and silk require a back-stitched joining as they are thick in texture; lighter-weight materials may only require fine running, or run and back-stitching.

Pin the selvedge ends of strips together (*Fig. 7*) and join at least ⅛ in. below the selvedge. As the strips when joined and opened out must form one length with edges level the whole way, it is important, when joining, to place the top right-hand corner of the front piece so that it projects beyond the back piece (*Fig. 7*); the amount of the front piece projection should measure the same distance beyond the back piece as the joining stitches measure from the upper edge of the strips (*Fig. 7*) where A to B and C to D are equal.

Hold the work over the first and second finger of the left hand while joining, and keep the upper piece of material taut, to prevent puckering. Open each join out flat and rub the back with the thimble, then cut away as much of the selvedge as can be spared (*Fig. 8*). When joining transparent materials like chiffon and lisse, the whole of the selvedge must be cut off, as it is thick, and would show through to the right side if left on the strip. An iron is often required to steam or press a joining quite flat.

FOLDS.—There are several methods of making folds for millinery purposes, the one shown in *Fig. 9* being cut twice the width that is required when finished; the cut edges are pinned together and then either tacked or lightly run ⅛ in. from the cut edge. This is a raw-edge fold, and is used when a succession of folds are required to fit flatly round the side-crown, or the brim of a shape. As each succeeding fold is sewn into place it is arranged to cover the raw edges of the previous one. For piping, the material is cut and run as for a raw-edge fold, except that

a piece of cord or thick wool is laid inside the fold of the material (*Fig. 10*) and held in place by fine running stitches taken through the two folds of material. Another fold (*Fig. 11*) is also cut twice the finished width, but in this case the raw edges are turned over to meet at the centre where they are caught together with lacing stitches, the needle being put under the cut edge of first one side and then the other. This makes a rounder fold than *Fig. 9* and is termed a *rouleau*. *Fig. 12* shows another fold or roll, for which the material is cut three times the finished width, e.g. if the finished fold is to be $\frac{1}{2}$ in. wide, the material must be cut $1\frac{1}{2}$ in. wide. First the edges are folded towards the centre, the upper edge is left raw, and the lower one is folded again and slip-stitched to the upper one. This rouleau is often called a French fold and is used as a trimming or finishing fold; it frequently covers the raw edges (*Fig. 9*) at the lower edge of a side crown-covering, etc. If a long length of this rouleau is required in a material that does not easily crease or soil, a more speedy method of making it is to place the right sides of the material together as *Fig. 13*, then pin and run-stitch them $\frac{1}{4}$ in. from the cut edges, afterwards turning the rouleau carefully to the right side (*Fig. 13a*). This method of making would quite ruin a piece of velvet or of stiffly-finished silk, but in the case of eolienne, or silk crepe would be quite successful. A piece of cross-cut material 2 in. to 6 in. in width may be slip-hemmed along both edges, then set into folds along the length (*Fig. 14*), and twisted into a rouleau (*Fig. 14a*). Strings for elderly ladies' bonnets when made from piece material are cut on the cross and made into a flat fold $\frac{3}{4}$ in. to 1 in. in width. The cut edges are both turned in neatly and slip-stitched at the edge of the fold (*Fig. 15*).

A method of making a padded rouleau is sketched in *Fig. 16*. This is usually of softly-finished silk or satin and is cut about $1\frac{1}{4}$ in. in width. The edges of the material are run together on the wrong side (*Fig. 13*), and the tube of material afterwards turned right side out (*Fig. 13a*); a length of soft cord or wool

is drawn into the tube, the material being eased slightly by drawing up the gathering thread, thus giving a rucked effect as in *Fig. 16*.

Bows of Piece Material are made of silk, satin, velvet, crepe, and many other materials. With the exception, perhaps, of tulle, very thin chiffon, ninon, lisse, and muslin, these materials are all arranged more gracefully into bows if cut on the cross.

When a length exceeding one crossway strip of material is required, two or more pieces must be joined together as shown in *Fig. 7*. If the bow is being made of velvet the edges may be turned over once and caught down lightly on the wrong side with "catch" or "cat"-stitch (*Fig. 17*), or if the velvet is thin and can be neatly rolled, the edges can be turned over twice to form a tiny rolled hem, and then catch-stitched, or roll-hemmed (*Figs. 17* and *18*), according to the type of bow being made. The strip can either be hemmed along both sides, and across the ends after the selvedge has been cut off; or the ends may be mitred or lined (*Figs. 19* and *20*). Taffeta silk and other materials that are the same on both sides of the fabric are usually roll-hemmed on to the right side of the trimming piece. The tiny rolled hem makes a neat edge to the bow, and the small stitches taken through the material when the hem is slip-stitched will be on the wrong side of the trimming.

To form a mitred end, fold the long pointed end of material over so that A touches C, the fold lying between B and D (*Fig. 21*). Either back-stitch, or run and back-stitch, from C to B, taking stitching well inside the selvedges (*Fig. 22*). Turn the mitred end inside out, taking great care to form a true point, and then either catch-stitch or slip-stitch from D to C (*Fig. 19*).

An end may be lined with the same material as that used for the bow, or a contrast in either colour or fabric may be chosen. A velvet end is often lined with silk or georgette, while one of millinery cloth may have a lining of velvet. Cut the lining to the same shape and the same "way" of the material as the piece being lined. Unless the selvedge way of lining and trimming

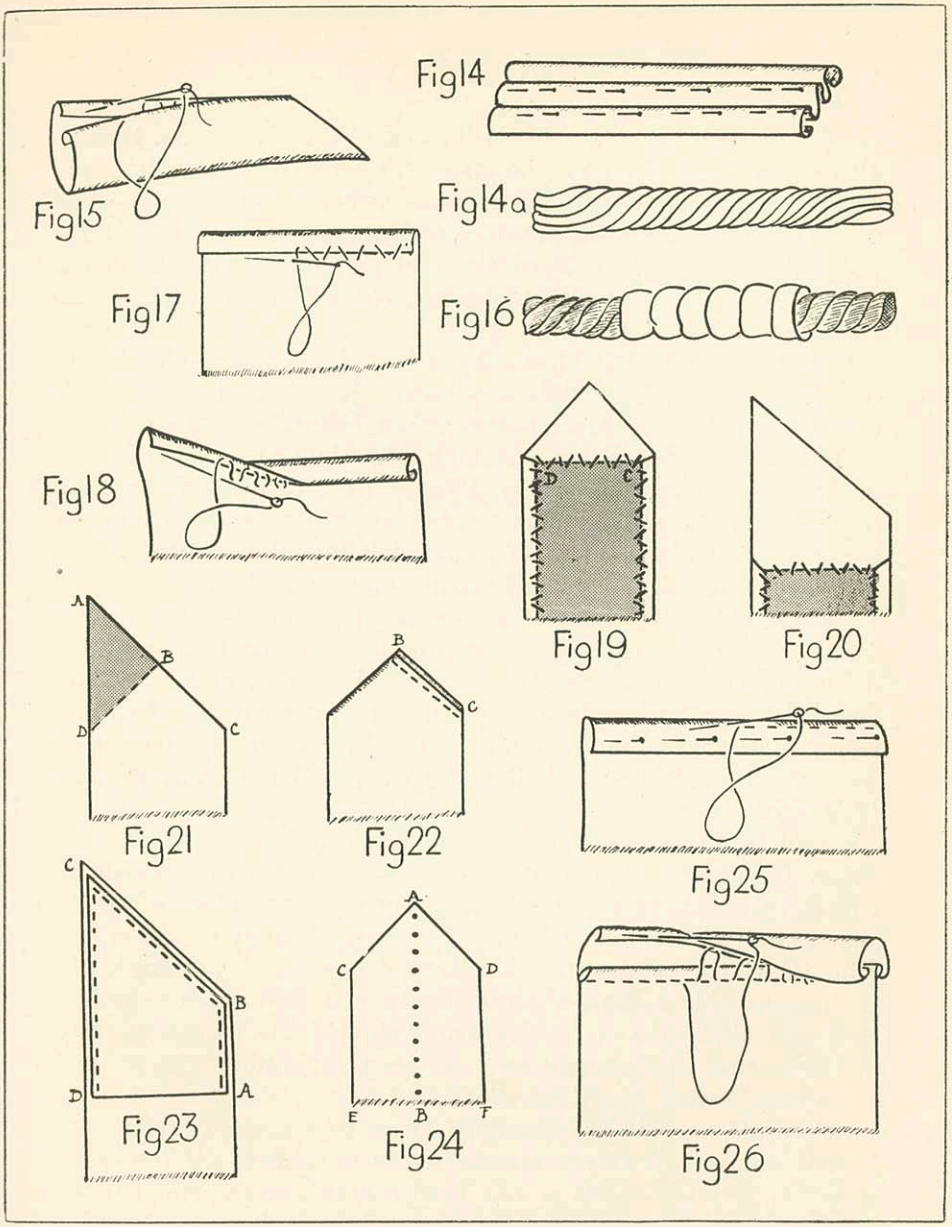
Fig14
Fig15
Fig14a
Fig17
Fig16
Fig18
D
C
Fig19
Fig20
A
B
D
C
Fig21
B
C
Fig22
Fig25
C
B
D
A
Fig23
A
C
D
E
B
F
Fig24
Fig26

piece run together, the edge will not lie smoothly when turned. Place the right sides of the lining and material together, pin carefully to prevent them from slipping, then join from A through B to C and D. Snip the turnings at B and cut away the extreme point at C (*Fig. 23*). Turn the end right side out, shape the points carefully, and either slip-hem or catch-stitch down the lower edge (*Fig. 20*).

Another method is shown by *Fig. 24* where a pointed end, or what is known as a "donkey's ear," is cut from one piece of crossway material. After cutting, fold from A to B, so that C and D also E and F are touching, the right side being inside. Join the cut edges as in *Fig. 23* and then turn. This method obviates the lengthway joining, but unless it is the means of using a small corner-piece of material it is rather wasteful as a triangular piece is cut away beyond points A and C.

When thin silk, ninon, lisse, or georgette are being prepared for trimming pieces, a French hem is quite the neatest and most dainty method of concealing the cut edge. To make this hem, turn back about $\frac{1}{2}$ in. of the material on to the right side (*Fig. 25*), run a tuck $\frac{1}{8}$ in. from the fold, then roll the hem over on to the wrong side, and slip-stitch it just to cover the running stitches (*Fig. 26*).

A further neat and good way of concealing a raw edge is by binding. The binding may be of crosscut strips of material in contrast with the trimming piece, as, for instance, a bow of brown silk bound with brown velvet. The strips should be cut about $\frac{3}{4}$ in. in width. Place the binding material and trimming piece with right side together, then neatly run the edges together, turn the bind over on to the wrong side of the trimming piece and slip-stitch the edge down to cover the running stitches just as in the French hem (*Fig. 26*).

Figs. 27 and *28* are standard types of piece-material bows. Heavy makes of velvet should never be chosen for trimming purposes, as they make a hat heavy and uncomfortable; the light-weight millinery velvet is always best. There is always a

Fig27

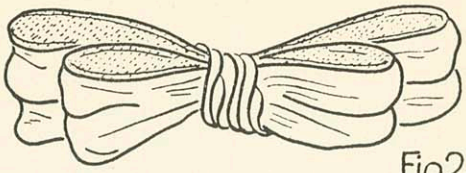

Fig28

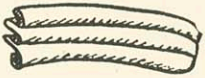

Fig28a

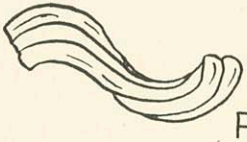

Fig28b

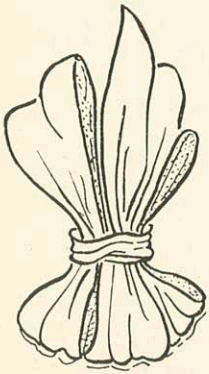

Fig29

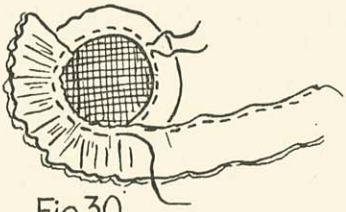

Fig30

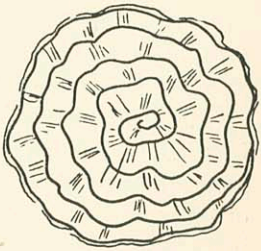

Fig31

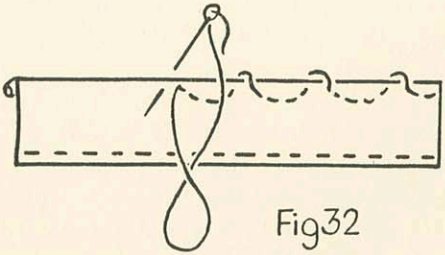

Fig32

difficulty in manipulating trimmings of piece velvet, and skill is needed to dispose of the bulk of material at the root of the bow. It is sometimes necessary to make the loops and ends up separately and mount them neatly and firmly on a small foundation of stiff net or muslin (*Fig. 27*). Great care must be taken in pleating the loops and ends to see that the pleats fall gracefully into place, and that the edges of the loops fall evenly one above the other and hide the back of the velvet and the catch-stitching. Strong cotton or silk are necessary in stitching these bows, and neat firm stitches must be taken through the centre of the bow. An evenly-pleated and twisted wrap-over (*Figs. 28a* and *28b*) carried round the waist of the bow, from front to back, where it must be neatly finished, will hide all stitches and cover the net mount (*Fig. 29*). When thin silk, ninon, georgette and other light-weight piece-goods are being made into bows, a mount of net is not required, as such bows are made in the same way as ribbon bows (*see* Chapter VIII).

A thin lining of tarlatan or leno is occasionally put into an upstanding bow of soft silk or satin to make it more durable, but this is apt to weight the hat and is not to be recommended generally. Fine lace wire can, if necessary, be inserted in the hems of ends or loops or wire-stitched within their edges, to hold them in position.

Rosettes of Piece-material.—Silk, satin, chiffon and georgette as well as crêpe-de-Chine are cut on the cross for making rosettes. The length and width of the strip will vary according to the size of the rosette required.

A strip of 1 yd., if cut 2 in. in width and folded along the length, will make a simple rosette (*Fig. 30*). Join the ends on the wrong side by running the cut edges together; fold the strip in half lengthways, making the ends square, then holding the cut edges towards you to prevent creasing the fold, gather them together along their whole length.

Cut a 1-in. circular foundation of two-fold stiff net, and a $1\frac{3}{4}$-in. circle of sarcenet for covering it. Run the edge of the

sarcenet, place the net rounds upon it, draw up the gathering thread and tie the ends (*Fig. 30*). Commencing at the outer edge of foundation, with the neatly-covered side away from you, arrange and sew the material round the outer edge, taking small stitches at the back of the foundation and longer ones in front to secure the material in place (*Fig. 30*). Ease the material sufficiently for it to fall in soft flutes as it is arranged round and round the foundation towards the centre. Each succeeding row of gathered material covers the raw edges of its predecessor, and the tip of the centre can be drawn down a little among the folds of the last row, so that when complete the rosette is quite neat and compact (*Fig. 31*).

Single silk, either roll-hemmed or French-hemmed along the outer edge, is often used for this type of rosette. Narrow lace, ribbon, or soft straw are sometimes used in conjunction with the single silk, the outer edge of which is turned over once to the right side, and the lace, ribbon or straw run lightly over it, after which the inner edge of the silk is gathered on to a net foundation as described above. Another variety of such a rosette has the edge blanket-stitched or outlined with overcasting stitch worked in fine wool, fibrone or silk.

A neat little rosette edged with shell-shaped shirring is pretty for infants' and children's millinery. The upper edge of the material is rolled over twice to form a narrow hem, and the gathering is worked in a "shell"- or "scallop"-shaped wave, the needle being taken *over* the folded edge of the hem during the gathering process (*Fig. 32*). The ends are cut and hemmed, and the long edge is gathered in the usual way, but before the material is sewn on to the net foundation the shell-shirred edge should be thrown into points by being slightly eased on to the gathering thread. A strip of material measuring about $1\frac{1}{4}$ yds. in length will be required for a small rosette sewn to a 1-in. wide foundation as in *Fig. 31*.