

Figure 2

2a

2b

2c

## WEFT PROTECTORS

Weft protectors are used when the basic concern is to keep the weft from unravelling in a woven piece.

### TEMPORARY WEFT PROTECTORS

Measures that are used to hold the weft in place until the final finishing can be done are called temporary weft protectors. These may be slip knots, as shown in figure 2, a-d, or a bit of glue applied along the fell lines of the piece. Beginning and ending a weaving with some rag strips or heavy yarn that will later be removed will also serve as a temporary weft protector.

### PERMANENT WEFT PROTECTORS

Permanent weft protectors can be divided into the following categories: Handstitched, Knotted, Bound, Woven, Sawn. Many provide a decorative edging while also holding the weft in place.

As a foundation for permanent weft protectors, the first and last rows of a piece can be beaten more firmly. The weft protectors used can be the final step in the finishing process, or they may serve as a foundation for further finishes such as fringes or braids.

The permanent weft protectors allow for weaving the warp ends back into the cloth. See figure 3. This in itself is a good way to protect the weft. For a fabric of very fine yarns, weaving one warp end back into the cloth every inch or so will provide a very inconspicuous finish.

Figure 3

FINISHES IN THE ETHNIC TRADITION

# Handstitched Weft Protectors

A long strand of weft yarn or a matching sewing thread may be used for the handstitched protectors. The stitching is easier to do on the loom while the work is still under tension. If, like many weavers, you have trouble disciplining yourself to stop weaving and stitch, use a temporary weft protector at each end of the piece and stitch after the piece is off the loom.

To handstitch on the loom:

*Leave an end of weft at least four times the width of the piece at the right side when you begin. Weave one or two inches. Stop and work the handstitched weft protector at the end of the cloth nearest you. Then proceed to weave your entire piece. Before removing it from the loom, stitch at the other end.*

Please note that the illustrations in this section are intended as a guide. The number of warp ends and weft rows covered by the stitches can be varied to suit the scale of the fabric being worked on.

Note: In each illustration on this page, stitching proceeds from right to left.

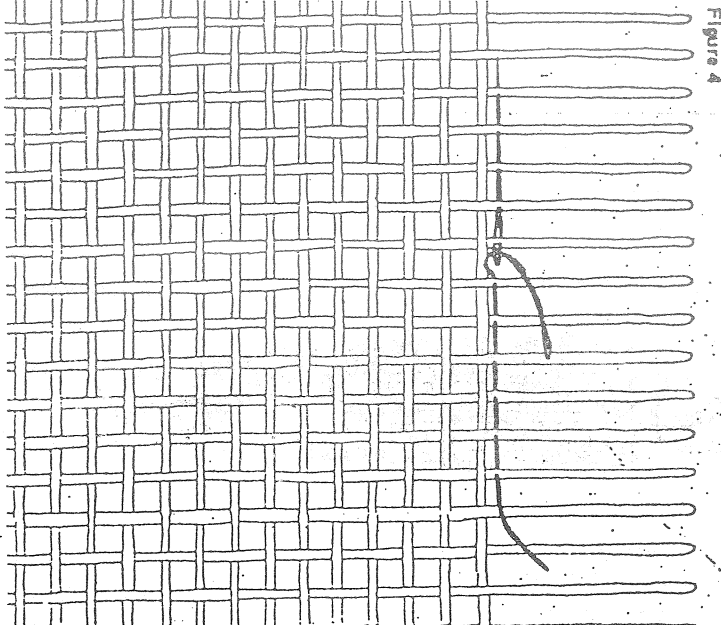


Figure 4

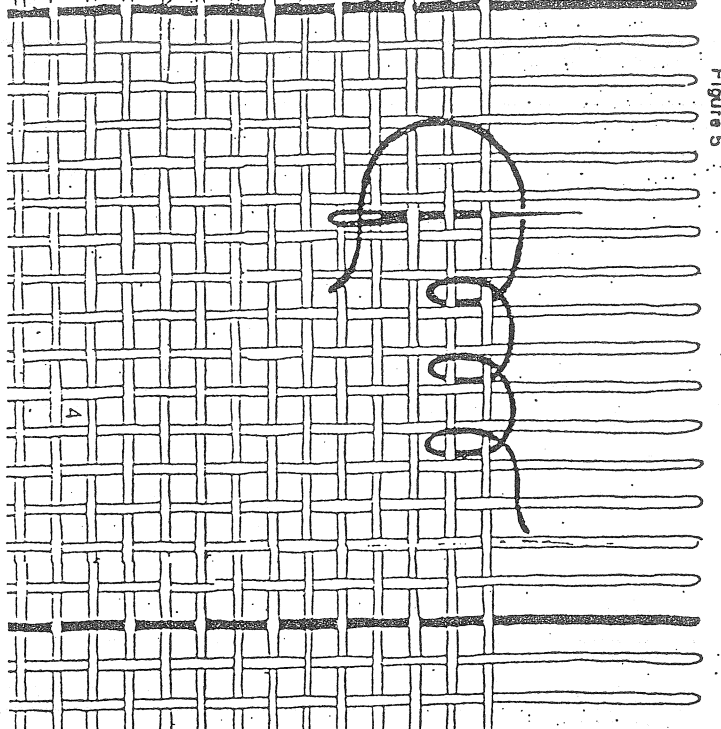


Figure 5

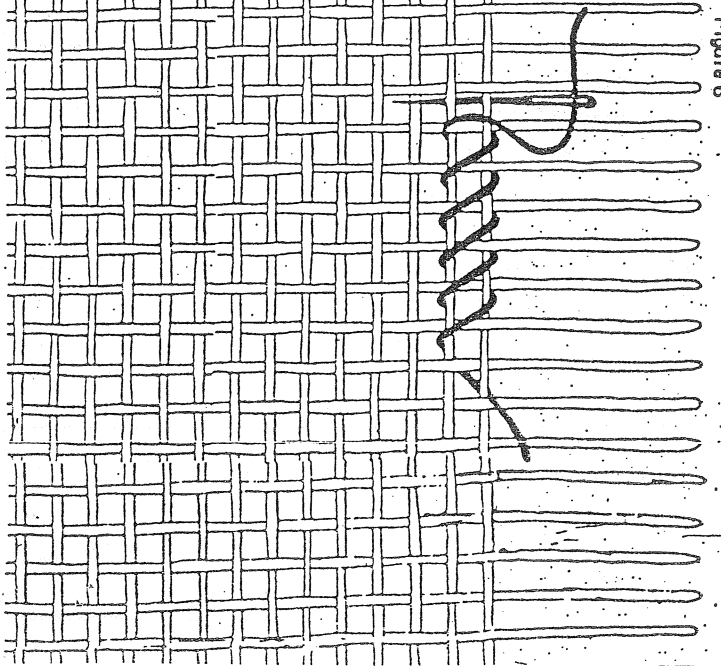


Figure 6

## SEWN WARP ENDS

One way to protect the weft with handstitching is to sew through each warp end. See figure 4.

## BUTTONHOLE STITCH

The familiar buttonhole or blanket stitch is an excellent weft protector. See figure 5. The stitches are worked from the bottom up. An attractive edging is created with this stitch. Plate 13 shows this edging and its variations used in a finely woven textile from China. Plate 8 shows a buttonhole edging on a heavy weft faced bag from Israel; Plate 30 shows it used on felt Eskimo mittens.

## OVERCASTING

This is the quickest of the handstitched protectors. See figure 6. The stitches are made from the top of the fabric down. By reversing the direction of the stitching, a crossstitch effect will result.

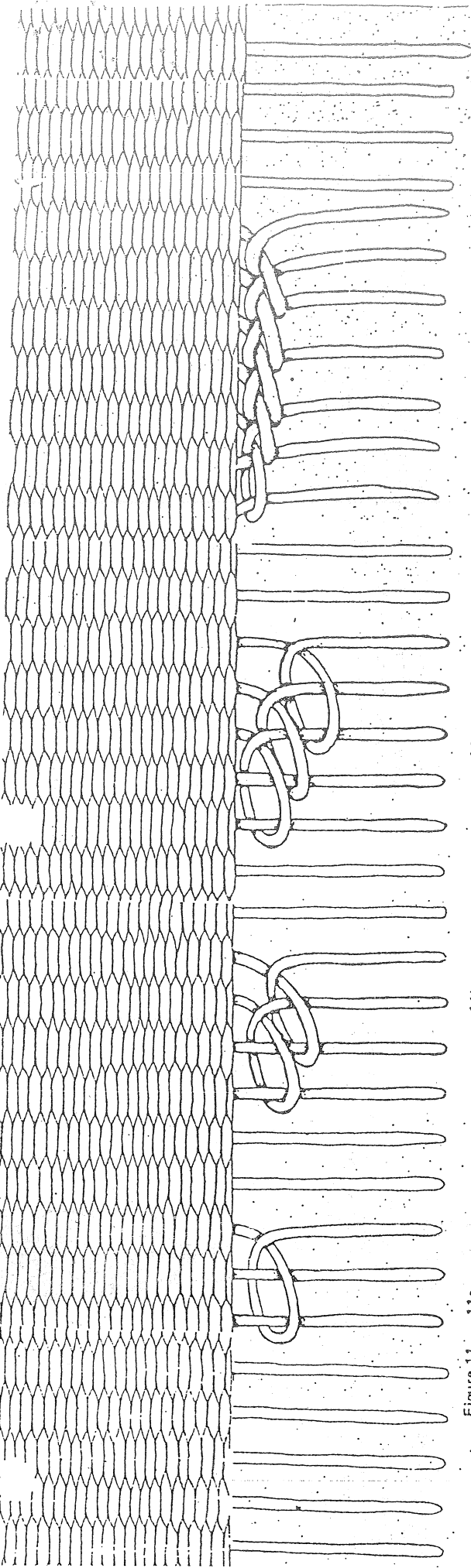


Figure 11 11a

11b

11c

11d

### Philippine Edge

One of our favorite weft protectors is shown in figure 11, a-d. It is used frequently on weft faced fabrics, such as rugs, and on the rims of baskets. Plate 3 shows it used on a warp faced fabric as well (on a Mexican textile). It is a very versatile edging, producing a neat, braided look. *Work this edging from left to right. Hold the first two warp ends (the passive ones) in your left hand, and the third warp end (the active one) in your right hand. Wrap the active end around the passive ones. (fig. 11a).*

*The knotting motion is: "over, under and down." Drop the warp end farthest to the left. Transfer the right hand warp end to your left hand; it now becomes passive. Then pick up a new active warp end with the right hand. Repeat the knotting motion. (fig. 11b).*

Continue as in figure 11 c and d.

As with the other half hitch edgings, the Philippine edge may be worked row after row on the same side or from alternate sides of the fabric.

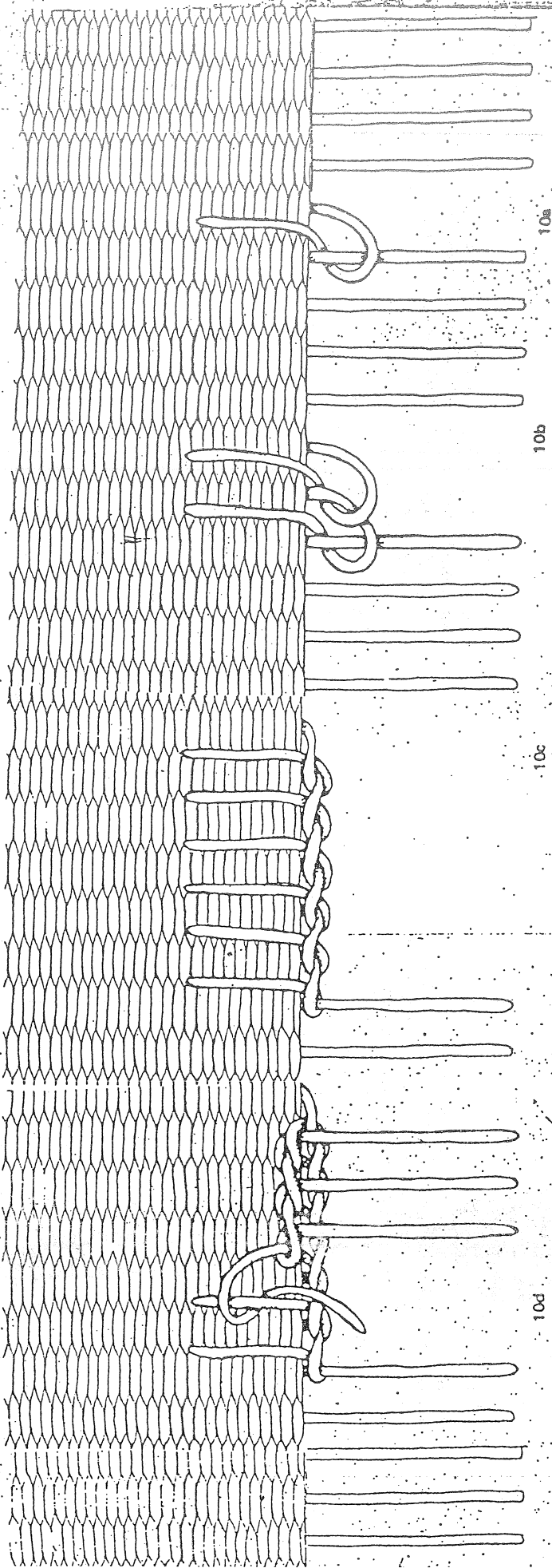


Figure 10: The knotting of the Damascus edge proceeds from right to left.

### Damascus Edge

The Damascus edge is a good finish for thick warp. Half hitch knots are worked around passive warp ends by active warp ends. See figure 10, a-d. Working from right to left, hold the passive warp end in your left hand and the active warp end in your right hand. The knotting motion is: "over, under, and up." (You might find it helpful to repeat this phrase as you work the knot.) The active warp end finishes in a vertical position above the fringe. (fig. 10a). Drop this warp end. Transfer the passive warp end to your right hand. It now becomes the active warp end. With your left hand, pick up the next free warp end, a new passive warp end. Now repeat the knotting motion. (fig. 10b). (One warp is always left down at the edge after all warps have been knotted.)

Once all of the warp ends (except the last one) are in position above the fringe line, they may be worked down from the top following the same method, as shown in figure 10d. Or, the warp ends may simply be brought down and knotted again from right to left. A third alternative is to turn the fabric over and knot from the other side. By alternating sides in this way, the effect of the knotted edge going off at an angle is counteracted.

Plate 15 shows a single row of Damascus edge used as a foundation for weaving the warp ends back into the cloth in a contemporary Swedish tapestry.

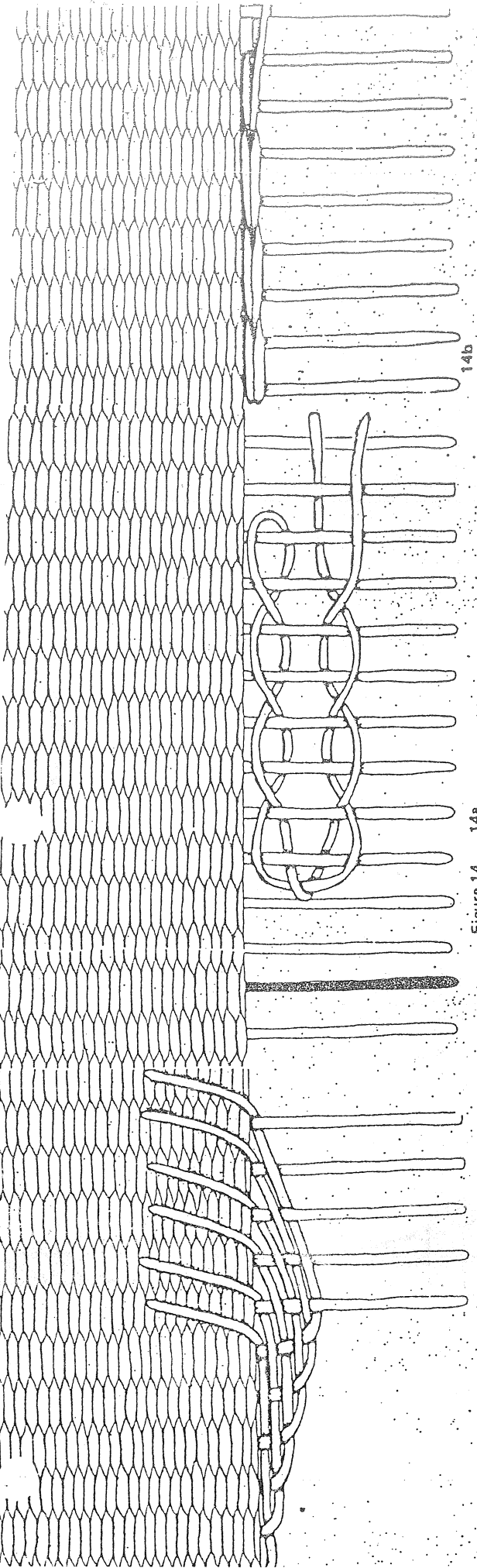


Figure 13 13a

Figure 14 14a

14b

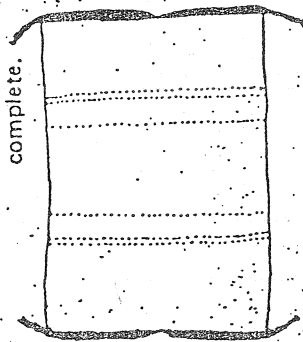
## Woven Weft Protectors

### WOVEN EDGE

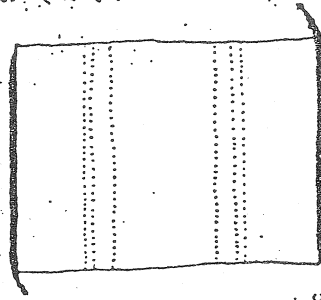
The woven edge, diagrammed in figure 13, is often found on Scandinavian rugs. The weaving of the warp ends may begin in the center of the piece, as in figure 13b, or at one edge, as in figure 13c.

Weave the first warp end under and over neighboring warp ends for a given distance. Lay it above the fell line. Then weave the second warp end in like fashion, across the same number of warp ends as the first one.

Initially, a diagonal is formed at the edge. The warp ends extending over the fell line may be trimmed off after weaving is complete.



13b



13c

10

## Bound Weft Protectors

With bound weft protectors, an additional yarn is used to encircle warp ends, to hold the weft in place.

### TWINING

While complete textiles can be made with twining techniques, twining can also be an effective weft protector. Single heavy warp ends or groups of fine warp can be encircled by the twining. See figure 14 a and b.

An additional yarn is used to twine. Double it and enfold the first group of warp ends. Then exchange the position of the top and bottom twining strands. Experimenting with the way in which strands are twined will give you different patterns.

Navajo weavers traditionally use twining at the four selvage edges of their blankets. See plate 24 for an example.

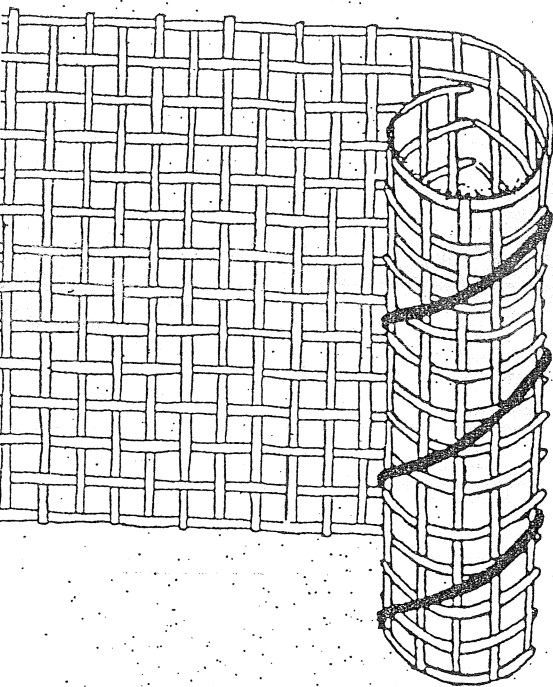


Figure 17 17a

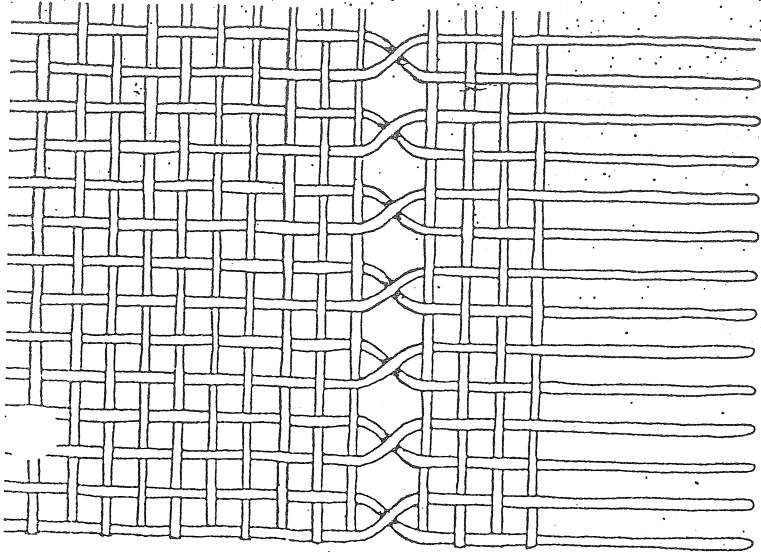
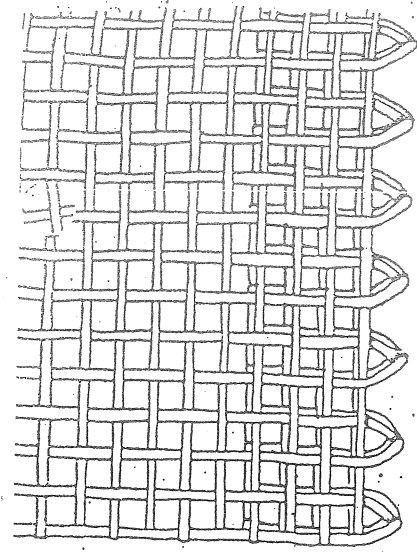


Figure 18 18a



18b

**ROLLED HEM**

Figure 17 shows one possibility for stitching a rolled hem. Many decorative effects can result from the manner of stitching.

*Roll the fabric tightly and stitch as for overcasting.* (See fig. 5, page 4). This hem is excellent for fine fabrics. It may be too bulky for thicker handwovens.

Decorative stitching on a rolled hem is shown on plate 21.

**PICOT HEM**

This hem takes some on-loom planning.

*Figure 18 shows how a row of leno woven at the hemline of a fabric will create a picot edge when the hem is folded at that point.* The leno cross is shown in figure 18a. Figure 18 b and c show the picot edge at the foldline.

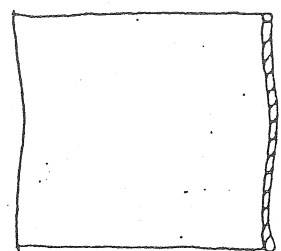
**PLANNING FOR HEMS**

Here are a few on-loom hints to keep in mind if you are making placemats, clothing or other items which might require a hem.

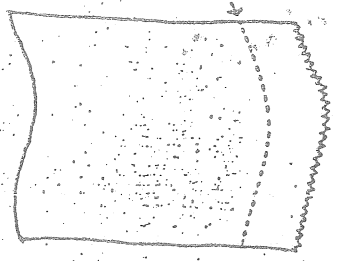
A fine sewing thread may be woven along the line where the fold of the hem will be. It stands out and can be used as a guideline for the fold.

Many weavers recommend the use of finer yarn for weaving the hem portion of a project, to reduce its bulk.

Be sure to stitch along one weft thread when stitching the hem in place, to keep the stitches from showing.



17b



18c



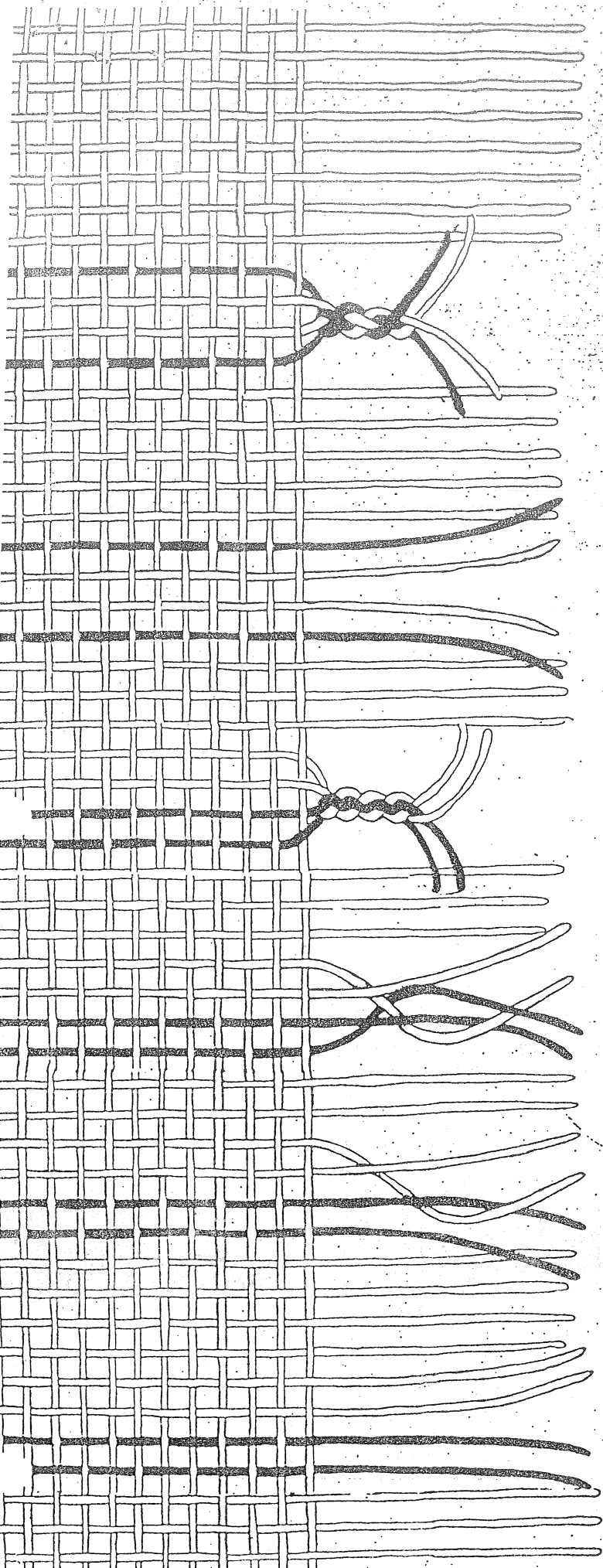


Figure 34 34a

34b

34c

34d

34e

34f

### ROUND BRAIDS

#### Four Strand Round Braid

This is one of the most widely used braids. The method of working is shown in figure 34 a-d.

*Begin with two strands in each hand. (fig. 34a). The outer right strand is brought under the next two strands, then back over one. (fig. 34b). In other words, the right-hand strand returns to its "own side." It is now the innermost strand on the right. The same action is now repeated with the outer left strand, "under two, back over one." (fig. 34c). The completed braid is shown in figure 34d.*

It is fun to experiment with color sequences in this braid, also. Try arranging the warp ends in light, light, dark, dark order. Then try the braid with the colors in an alternating order: dark, light, light, dark, as in figure 34e. The first version will have vertical stripes, and the second will have candy-cane-type diagonal stripes. (fig. 34f). Choose the effect that best complements your textile.

If you are trying out all of the four strand braid variations on the same group of yarns, make a gathering knot between each type so you can rearrange the colors.

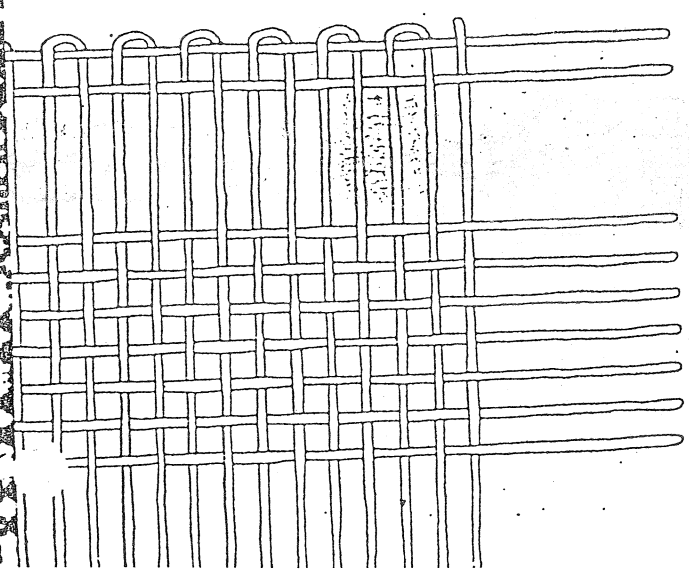


Figure 38

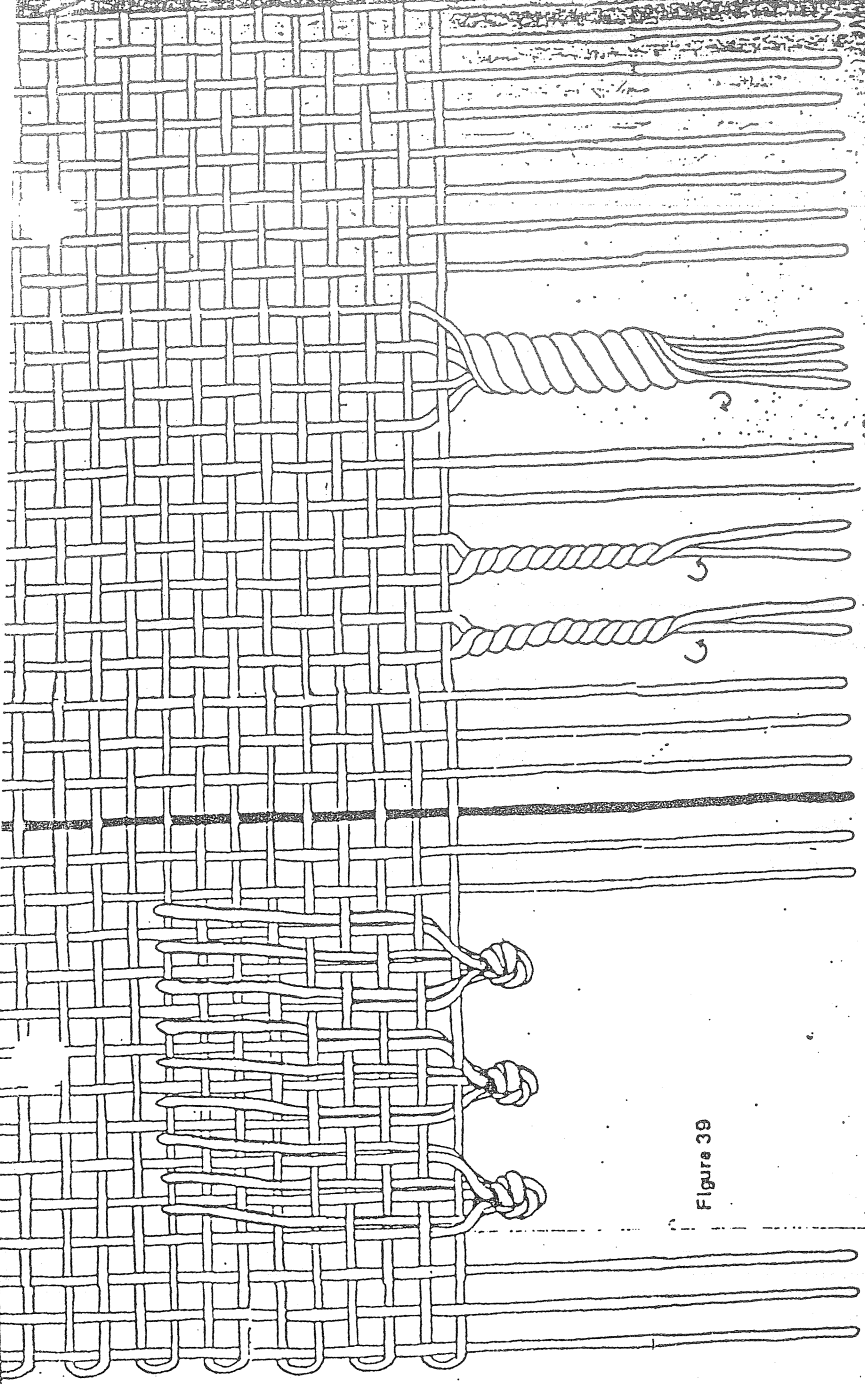


Figure 39

### Non-Warp Fringe

We should mention non-warp fringes also. Fringe may be woven at the selvage edges of a piece as well. See figure 38 for an example of selvage fringe being woven on the loom. Note that two scaffold or "dummy" warp threads are placed the desired distance from the body of the piece to provide an even fringe. These are pulled out or cut off when the weaving is completed. (If a slippery fringe is used in the weaving, a second weft could be used in the body of the piece only, to keep its selvages from slipping into the fringe area.) Other fringes that are woven separately and applied later on are covered in the Embellishments section of this book.

### WEAVING IN ENDS

Needleweaving the warp ends to work them back into the cloth is an alternative when a perfectly plain edge is desired. This is not really as time consuming as it sounds, and is a very crisp, clean finish. Refer to figure 3, page 3. Weaving in warp ends after overhand knots have been tied produces a picot edge effect. See figure 39.

Figure 40 40a 40b

## Plied Warp Protectors

### TWISTING

Warp ends may be Twisted or plied, as shown in figure 40. Take two groups of warp ends and twist them in the same direction. (fig. 40a). When they are twisted so tightly that they begin to kink, place the two groups together and twist them in the opposite direction. Knot the ends together.

The ends of a wool warp may be felted by holding them over the spout of a steaming teakettle. This eliminates the need to knot, and the ends will not unravel if trimmed. Twisted fringe lends a handsome finish to blankets and hangings, and is well worth the time involved. Plate 20 shows twisted fringe used as a decorative finish on a Norwegian headscarf.



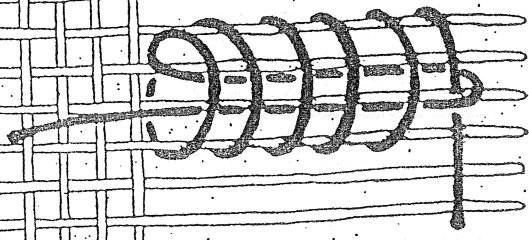
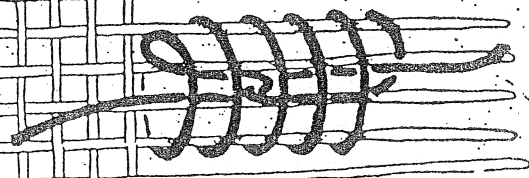
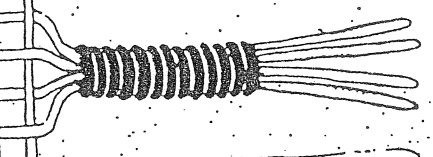


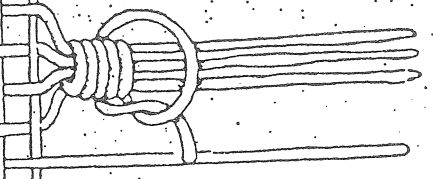
Figure 41 41a



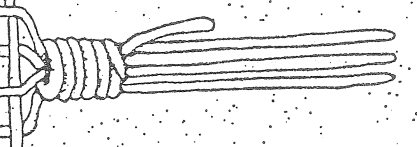
41b



41c



41d



41e

## Bound Warp Protectors

### WRAPPING

You may wish to try wrapping or "whipping" warp ends as a means of binding them tightly in place, or of forming long, slender "coils." See figure 41, a-c. Form a "u" with one end of the wrapping strand and wind firmly over it and the bundle of warp with the other end, from top to bottom. (fig. 41a). Insert the end of the wrapping strand into the loop of the "u" and pull on the top end to lock the wrapping on. (fig. 41b). Trim off ends. The completed wrapping is shown in figure 41c. Figure 41 d and e show wrapping secured with a gathering knot.

Plates 4 and 4a show wrapping in many colors used as a decorative trim at the bottom of a Bolivian coca bag. Wrapping is an excellent means of adding feathers to a piece. But don't forget to think of the total piece. Add feathers only if it will enhance the total impression you are trying to create.