# B — CHAINED WARPS

We will describe two warping systems on which we make chained warps: the warping frame and the warping reel. Here are several hints, which apply to both.

The whole piece should be warped on the same day, by the same person. A change of hands or temperature would affect the tension of the warp.

Warping with two or four threads is a great time saver. Remember to keep a finger between the threads so that they do not twist.

Very wide or heavy warps can be made in two, three or more sections.

Do not slide your hand on the warp while removing it from the mill or frame. The inside threads might slip and be longer than the outside ones, creating difficulty in the beaming. The same rule applies during the beaming of the warp.

Warping on a frame or reel demands that we make crosses so that the threads remain in the same order in which they were warped. To simplify the counting of the threads, tie off the cross every 10 crosses.

### Referring to our example on page 24:

If you are warping with a single thread, you need  $\frac{560}{2} = 280$  crosses

Warping with 2 ends, 
$$\frac{560}{4} = 140$$
 crossings

Warping with 4 ends, 
$$\frac{560}{8} = 70$$
 crossings

NOTE: Care should be taken that as one tires during the making of the warp it is possible to have a great difference in tension. An occasional rest is recommended.

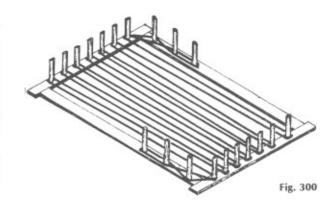
The same rule applies when weaving as you wish to have the beating as uniform as possible.

It should also be noted that you may encounter a difference in tension causing sticking when beaming the end of your warp. This is caused by the resistance of the bobbins as they spin faster when they grow smaller.

## WARPING FRAME

The warping frame can be used flat on the table, or hung on a wall. The warp length is limited to 12 or 18 meters (yds.) according to the model you have. It is recommended for table looms such as Dorothy, Meco and Nilec.

Wider warps for floor looms can be made in sections.



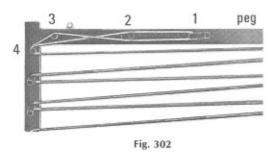
peg 1 2 3

After the warp length has been determined, measure it off on a frame.

Take the yarn ends coming from the spool rack and knot them together over peg 1. (Fig. 301)

Go over peg 2, under 3 and around 4, across the board and back till the desired yardage is reached. (Fig. 301)

Arriving on top pegs, go around the last peg No 4, under 3, over 2 and around 1 and reverse the procedure (under 2, over 3 and around 4). (Fig. 302)



Bring your threads to the bottom end, following the threads that are already on the frame.

Arriving on peg 4, go around 4, over 3, under 2, around 1 and return to the top by reversing the procedure. This will give you a cross at both ends and will simplify the beaming.

Remember to count and tie off the cross at every 10 crosses.

If you have more than one color in your warp, you must place them on the warping board in the same order you wish them in the reed. When you wish to change colors, cut threads close to peg 1 and tie the next color to the ends.

When the warping is completed, tie the two last threads together around the last peg as you did at the beginning.

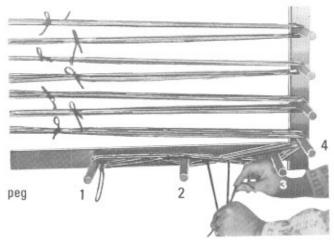


Fig. 303

Tie a string of a different color securely around the threads in the cross between pegs 2 and 3 (Fig. 303)

If the warp is not to be beamed at once, two strings tied either over or under the threads at peg 1 will keep the cross well separated.

If you have made a cross at both ends, tie firmly at both ends.

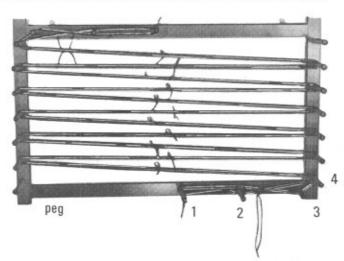


Fig. 304

Tie a string, contrasting to the color of the warp, firmly around the warp threads of every row at the center of the board. (Fig. 304)

To store your warp securely until you are ready to beam it, use either the "BASKET" or the "CROCHET" (also called chained) method.



Remove the warp from the board (fig. 304) or the reel (fig. 324) by grasping the warp firmly and slipping the loop off the end peg.

#### Basket Method:

Roll the warp up in a basket, having the warp turning one row on top of the other. (Fig. 305)

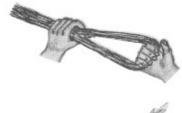


Fig. 306





Fig. 308

### Fig. 305

# Crochet Method:

Place the right hand through the loop and grasp the entire warp pulling it through to form another loop. (Fig. 306) Continue by chaining hand over hand until you reach the crossing. Do not pull the end of the warp (cross) through the loop when finished, but tie the last loop with a string.

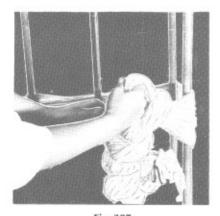


Fig. 307

## 2. WARPING REEL

The vertical warping reel is recommended for warps with many colors and textures of threads. More than 10 spirals on the reel are not recommended, until you have some experience with this type of warping equipment.

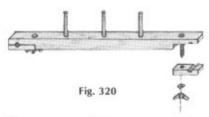
Leclerc offers three kinds of vertical warping mills: a first one on which you can warp 20 meters (20 yards), i.e. 1,83 meter (2 yards) per turn, a second one on which you can warp 30 meters (30 yards), i.e. 2,75 meters (3 yards) per turn, and a third one on which you can warp 40 meters (40 yards), i.e. 3,66 meters (4 yards) per turn. (Refer to the Leclerc catalogue.)

Detach removable pieces at both ends of crossing pieces. (Fig. 320)



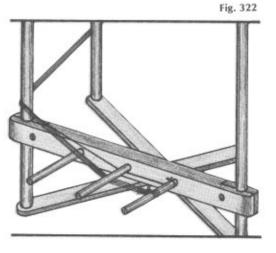
Fig. 321

Tie the ends of the threads coming from the spools to the end peg of the lower crossing. Following the guide thread, wind upwards in a spiral form. (Fig. 322)

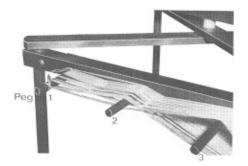


Place groove of top crossing piece around upright pieces at the height that is convenient for the length of warp. Replace the removable pieces using the wing nuts.

Use a guide thread (different in color or texture from your warp) measured to the length of your warp wanted, to determine where the lower cross-piece should be placed and attach as before. (Fig. 321)



41



When the top cross-piece is reached, make a cross in the form of a figure 8, always in the same direction; over the third peg, under the second, around the first, returning over the middle peg and under the third. (Fig. 323)

Fig. 323

Return your threads close to those you have just placed, this time making the spiral towards the bottom.

Make another cross in the form of a figure 8 as you did on top of the reel and start the upward spiral (See Fig. 324)

When your warp spreads to wide on the reel, place the threads very close by hand, to get free space to continue to WARP DIRECTLY ON THE WOODEN FRAME OF THE REEL. Continue until you have the desired number of threads, remembering to tie your threads every 10th crossing for easier counting.

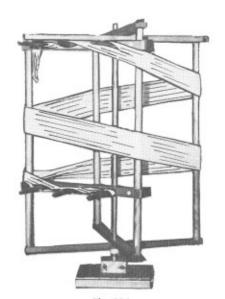
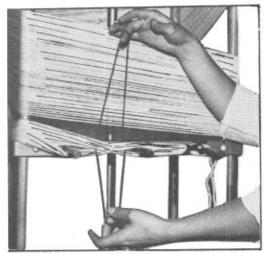


Fig. 324

If you have more than one color in your warp, you must place them on the warping mill in the same order you wish them in the reed. Always change color at peg 1, cutting ends and tying the next color to the ends.



Tie a string securely in the cross, the string long enough to allow to spread the warp on the width of reeding (example: 55 cm. - 22 in.).

Fig. 325

We suggest that you tie the warp tightly at every turn of the warping mill. This will prevent the threads from sliding when beaming. (Fig. 326).

To remove the warp from the reel, grasp the warp firmly and slip the loop off the end peg.

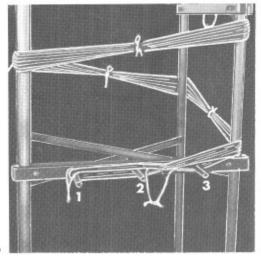


Fig. 326

To store your warp securely until you are ready to beam it, you can use either the basket or the crochet method to take the warp off the reel (see page 40).