



Brocade or Embroidery Weaving.

What is meant by Brocade or Embroidery Weaving. When a pattern weft is carried over and under as many or as few warp threads as desired so it forms an over-shot skip, or float over the warp threads, we have brocade or embroidery weaving. This weft pattern skip or float is generally, or often followed by a weft shot in plain weave or tabby to form the background for the pattern weft, and make the foundation of the fabric. There are many different forms of this type of weaving. The pattern weft can be put in entirely as a free design as suits the fancy of the weaver. Or it can be loom controlled pattern on a regular loom, which would include most of the patterns on harness looms from a four harness up to a Jacquard loom.

This month we are going to be concerned with some of the variations of the free weaving type of design. This is most often called Embroidery weaving. On account of the many different ways in which the weaver can use this, many different types are found all over the world, but the essential principle is the same. At Figure No. 1 is a simple form. The pattern weft is carried over and under three warp threads, and then a row of plain weave is put in all across the width, then another row of the pattern weft followed by the plain weave.

Figure No. 1

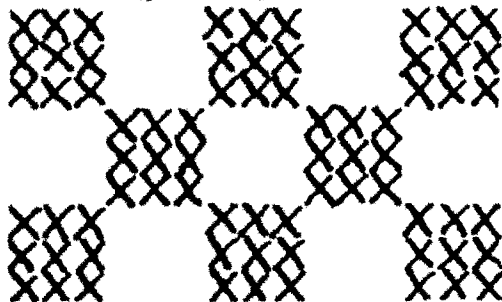
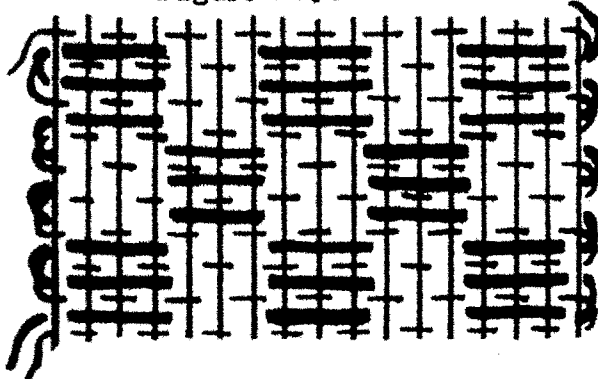


Figure No. 2



Several colors may be used if desired, and this simple pattern can be woven on even a cardboard loom and picked up on a needle or shuttle. Or a regular two harness loom could be used, or this could be threaded into a regular 4 harness loom and the threads then raised automatically. Figure No. 1 shows how to plan a pattern on cross section paper. Each X is a skip over a warp thread, and the shot of plain weave is not shown but understood. The weft thread can skip over any number of warp threads desired. But how long this skip shall be often depends on the kind of material used for warp and weft, and how close or far apart it is set in the reed. The smallest skip is over one warp thread, and it can be as long as is consistent with the type of fabric being woven. If the back of the fabric is to show as well as the front, the length of the skip on the back must also be considered.

Figure No. 2 illustrates the actual weaving of Figure No. 1. A number of other simple patterns for this same type of weaving were worked out in the News for July of 1937 for the heddle belt loom.

Swedish Embroidery Weave or "Dukagang", as it is called, has the pattern weft carried over three threads and under 1. This method is described in my leaflet "Lesson on Embroidery Weave", and will be repeated here. This is \$1.50 if anyone wishes to have it.

Russian Embroidery Weave is shown at Figure No. 4. Here the pattern weft is carried over three warp threads and under one, then a row of plain weave, then the next row of pattern takes the opposite 3 warp threads with the 1 warp thread of the previous row as the center of these 3 warp threads. The pattern weft should always be some heavier than the plain weave weft to show up well. The pattern weft turns back on the right side of the weaving. A separate weft is used for each color area, and added wherever necessary to aid in carrying out the design. This pattern shed can be picked up with the shuttle on a flat warp for each row, or the loom can be threaded to twill 1, 2, 3, 4, as in Figure No. 3. Here the pattern shed is raised by the tie-up as shown for the 4 harness

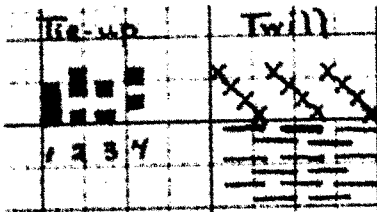


Figure No. 3

loom. Tie harness 1, 2, and 3 for one pattern treadle, and 1, 3, and 4 for the other treadle. These are used alternately with a shot of plain weave between each time. On the Structo loom, use harness 4 lever alone, harness 2 alone and plain weave between each time as usual.

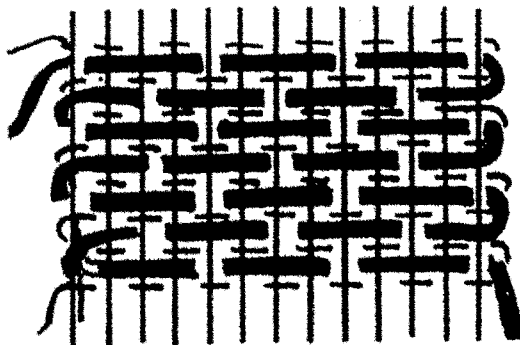


Figure No. 4

Figure No. 5 shows the type of design used in the Russian pieces. Just recently I saw this same kind of weaving on an interesting fabric from the Phillipine Islands. This textile had a striped warp and striped weft to form a plaid, and there were two shots of plain weave between each shot of pattern weft, very closely beaten up. These designs are based on a square, usually about $\frac{1}{2}$ " in size, in the traditional pieces. But if one wishes the size of these squares could easily be made various widths as desired, and many other types of design formed. Much variety can also be achieved by using different areas of color in the design.

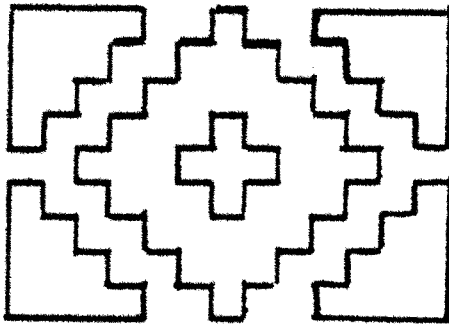


Figure No. 5

Figure No. 6. This is the detail of how Figure No. 4 can be worked out. Note that only the pattern weft shows in this drawing, and the plain weave row is not indicated either. The skips shown here are over three warp threads and under one each time the weft comes across the warp for the pattern. The pattern weft is carried only as far as is desired for each separate area and figure, and is not carried across the whole width of the fabric. Only one small bit of the pattern weft shows on the back of the fabric, as it goes under one warp thread each time. And the pattern weft turns back on the top of the weaving each time as shown in this figure.

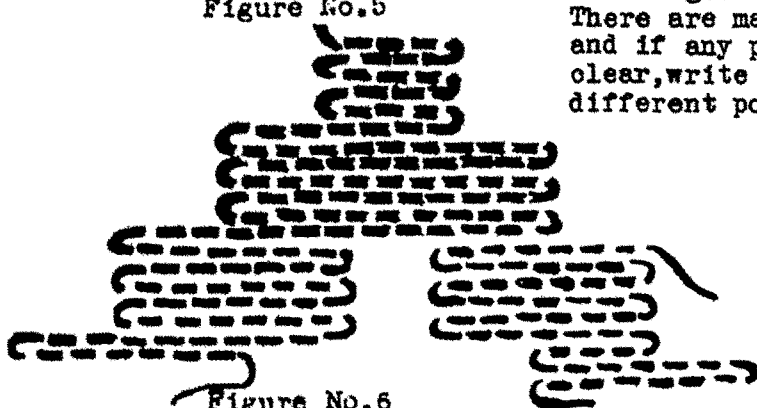


Figure No. 6

There are many ways of using this technique, and if any point concerning it is not entirely clear, write and let me know. It offers many different possibilities for making attractive unusual weaving which I hope you will find interesting to try out for yourself.

Coptic Embroidery Weave. This summer it was my privilege to examine a large collection of old Egyptian Coptic weavings of from the first to the 3rd century. Much of the Coptic weaving consists of plain weave fabric of fine linen or of cotton, and on this occur very intricate separate motifs in fine tapestry weave. These motifs, instead of being woven over and under one warp thread as in the body of the fabric, are almost always woven over two and under two warp threads.

There are several entirely different methods of handling this technique which were used in these textiles. The one which I shall describe for you has the background worked in colored pattern thread, while the design itself is in plain weave as shown at Figure No.9 at the bottom of this page. This is a rather rare form of weaving, and I am calling it Coptic Embroidery weaving, although there are really a number of other forms of the Coptic weaving which also might be classed as embroidery weaves also.

Detail of the Technique.

At Figure No.8 is shown the detail of the technique, which consists of two rows of pattern weft of over two and under two warp threads, a row of plain weave, two more rows of over two and under two warp threads and a row of plain weave. If a cross section paper design is used as the five X's on Figure No.8, each X represents the two shots of pattern weft, two warp threads, and two rows of the plain weave. This can be woven on any loom where it is possible to weave a plain weave. On a two harness loom, pick up the first row over two and under two warp threads all across the width, and draw

Figure No.7

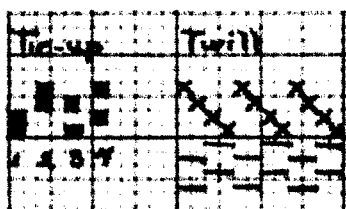


Figure No.8

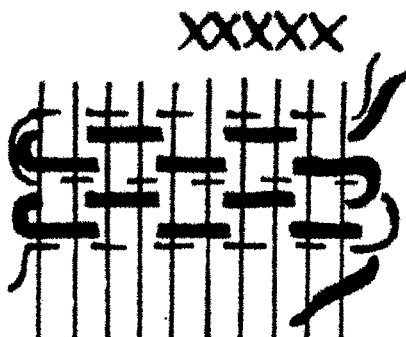
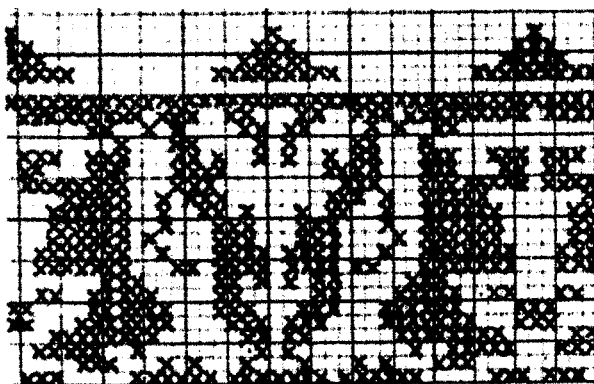


Figure No.9



through this a thread to mark the number of X's all across the width of the fabric. Then put in a thread to mark the center block of the width. Then center your pattern on this which helps greatly with the counting put of the pattern design. It is much faster to use a regular 4 harness loom threaded to twill, as shown at Figure No.7. Tie up the loom so as to raise harness 1&2 and put in a shot of pattern weft, then harness 3&4 and a shot of pattern weft, then 1&3 and a shot of plain weave. Repeat 1&2 with pattern weft, 3&4 with pattern weft, and then 2&4 for a shot of plain weave. Pick up with the pattern shuttle only those pattern blocks needed to carry out the design, and carry the pattern weft along underneath the warp threads when it is not needed.

Design, - For the first attempt, it is best to try a simple design such as the one given on Page 1, at Figure No.1 until the method has been learned. A large motif with large areas of free design can be drawn out on paper and pinned underneath the warp threads, and woven in actual size. At Figure No.9 is an attractive design after the manner of the old Italian towels. This may be used either as a separate motif for the center of a towel or as a complete border all across the width. Use No. 20 mercerized cotton or 40/2 linen set at 24 or 30 threads to the inch for warp and plain weave weft. For pattern weft No.3 or 5 mercerized cotton, 6 strand cotton, or heavy linen floss should be used. On the heddle belt loom, use carpet warp or knitting cotton for the warp with Germantown or Tapestry yarn for pattern in one color, and in another color for the plain weave. It is best to have one weft dark and the other light in order to show up the design well. This type of weaving offers many very unusual opportunities for doing fabrics that are distinctive and different, as it is a rather rare form of weaving not often seen. Do try it out for yourself.