Primitive or Picture Frame Loom.

It was in July of 1936 News that I first described the simple primitive loom, or the picture frame loom. With the interest in equipment for use in rehabilitation work so much in demand, I have had a number of requests for this material. And as this first issue is now out of print, I am giving here the directions which we have found useful in the adaptation of this loom for modern use.

The picture frame loom is made on the same principles as the primitive Ancient Peruvian Loom from my collection, which is shown above at Figure No. 1. At Figure No. 2 is the modern picture frame loom set up to weave as we use it. There are other ways in which it may be put together, but this has been used with success in many of my own classes, and is described as we have made it.

Equipment necessary for a Picture Frame Loom.

1. A good strong wood frame 24" x 30", or a hooked rug frame, or even curtain stretchers have been used in my own classes for large pieces.
2. Three dowel rods ½" diameter and 18" long, for the 24" x 30" frame above. Mark two of these rods off in quarter inches for its length. This helps to space the warp threads easily as they are put on. Tie these rods to the frame, as at Figure No. 3, at A, B, C, and D, E, F. Then tie the rods together at G and H. Be sure both rods are straight and parallel to the ends of the wood frame.

3. For the first attempt it is best not to try to set up the loom with more than about ten inches of warp. Use carpet warp or any coarse warp for this. Tie the end of the warp to the upper dowel rod on the left about 5" from the center. Bring the warp up and over the lower rod, under it between the rod and the frame, up and over the top rod between it and the frame, and down to the lower rod and over and under it again. Repeat for desired width. Space the thread with the fingers as it is put on, so there will be about 6 to 8 to the inch.
3. (putting on the warp continued) When the total amount of the warp has been wound on, tie the end of it loosely to the dowel rod. Then go carefully over the width of the warp to make sure all of the threads are as even in tension as possible. If they are not even, pull them up until they are, for the tension must be the same throughout. Then tie the last warp tightly to the dowel rod on which it ends, as at Figure No. 4.

4. Now it will be seen that there is a crossing of the warp threads so that it is possible to separate them into two groups with the fingers. Pass a flat stick through this shed as at AA of Figure No. 5. Tie this stick loosely to the sides of the frame so it can turn easily but cannot slip out of the shed.

5. Spacing the Warp threads, detail of this at Figure No. 5. In order to have the warp threads equidistant, proceed as follows: - Take a piece of thread or yarn that is to be used for the weft, a little more than twice the width of the warp on the loom. Divide its length & two, and at the center, loop it around the first warp thread on the left. Twist it once, twice or three times, according to the space between each warp thread. When the twisting is complete, tie the ends of the spacing threads to the edge cords. Repeat the same operation on the opposite end of the warp in the same way.

6. The next step is to tie the 3rd dowel rod with loops of cord to the warp threads. These loops are called heddles, and the rod, the heddle rod. To do this, take another flat stick or shuttle, and with it, pick up just the opposite warp threads from those on the first stick put in AA. Call this second pick up stick BB. Turn it on edge after all of the threads have been picked up on it.

7. Tie the end of a blue carpet warp ball to the end of the 3rd dowel rod and pass it through the shed made by the shed stick BB, from left to A, as in Figure No. 6, leaving the ball at the left side, and lose. With the heddle rod in the right hand, pick up a loop of the blue thread with the left hand between the first and second warp threads. Make a loop with this, twist it to the right, slip over the end of the dowel rod and pull up tight on the dowel rod, holding in place with the first finger of the right hand. Hold the rod high enough above the warp so the loops of the blue thread are about 1½ inches long. Twist another loop of the blue thread to the left and pull this up tight on the rod. Reach down through the warp threads and pick up another loop of blue thread between the 2nd and 3rd warp threads. Twist this to the right, pull up tight on the rod, make another loop, twist to the left, and pull up tight. Continue for the width of the warp. Detail of this shown at Figure 7. These loops of the blue thread need to be kept the same length. At Figure No. 8 is shown an extra flat stick on top of the warp threads, above the flat stick BB. This is used to gauge the width of the blue loops, is a help to keep them even, and can be used or not as desired. I hope this photo will be clear enough to show how the knot is made on the heddle rod.

When the blue loops are all tied to the heddle rod, tie the end of the blue thread securely to the rod, and pull out the flat stick BB, used to hold up the warps which were tied to the heddle rod with blue loops. Now if the stick AA is turned on edge, one group of warp is raised. While the heddle rod is pulled up, the other set of warp threads are raised.

Plain weaving on the picture frame loom. The loom is now ready to weave, with the flat stick AA tied in and the heddle rod tied up to the warp threads. The weft thread can be wound on a shuttle if it is to go the full width of the loom, or in small bobbins as at Figure No. 10 if it is to be used for a tapestry. A coarse comb or smooth flat stick, often called a weaving sword, can be used to push each weft row into place after the row has been put through the shed all the way across the width of the loom. The queer looking fork shaped object in Figure No. 10 is a wooden tool, also used by the Indians to push weft threads into place. One more useful tool is a small stick the width of the warp threads, with a small sharp nail driven in at each end on a slant. This can serve as a template, or tool to keep the weaving edges straight. It is inserted at the back of the weaving, and moved as the weaving progresses.

Beginning to Weave. When beginning, turn the end of the weft thread around the edge warp thread, and carry it through the shed made by turning the flat stick AA on edge. Put it into the shed on a sharp slant. Push it into place with the comb starting at the closest part of the slant to the twisting threads, for the width of the warp. Turn down the flat stick AA, pull up the flat stick BB or shuttle to hold the warp threads up so the next row of weft may be put in this shed. Carry the weft across the width of the loom in this shed. Push into place with the comb or weaving sword. This completes two rows of plain weaving. It is often called tabby.

Difficulties to be overcome in the Use of Loom.

This is a simple tool, and does require skill and patience to learn how to use it well. The beginner may have trouble with edges pulled in too much. This can be helped in several ways. First, be sure the warp threads are strung on the loom evenly. Loose threads in one place and tight in another may make it difficult to beat down the weft easily. Space the warp evenly, do not let it bunch together. Center warp threads often do this, while the edge threads seem to work further apart than they should be. The template described above helps to correct this. Another point which seems to aid in keeping a straight edge is to carry the weft only through a small number of weft threads at a time, beat it into place, then carry it a few threads further on, beat down and so on for the width of the weaving.

Possibilities of the Picture Frame Loom. Limited only by the patience and skill of the weaver. Some of the finest and most beautiful textiles in the world have been woven on a loom no more complicated than this one. All of the lovely ancient Peruvian fabrics were done on a loom of this same type. It is possible to weave with many different kinds of threads and yarns, fine as well as coarse. Also many different kinds of technique may be used, Tapestry in all of its forms, one of the Indian rug tapestries shown at the left with the detail is shown above. Knot techniques, brocading, gauze weave, Spanish weave etc. can all be used. And with the addition of extra shed sticks and heddle rods, twills and loom controlled patterns may be woven.

The method of using this type of loom for the Gordes Soumak knot has already been described. This type of weaving deserves much wider use, as it is thoroughly practical, provided one is willing to learn how to use it, and it costs but little.

June 1944
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