

TWO-WARP WEAVES • 3

INTRODUCTION TO TWO-WARP DOUBLE WEAVES.

By pure coincidence we are approaching a new problem from two different angles. The problem are the Tissue Weaves, and the two angles are: Full Swivel, and Two-Warp Double Weaves. The first will give a new insight into polychrome weaving; the second makes possible a planned relief (3D) of design: blocks of pattern which are raised or sunk at will.

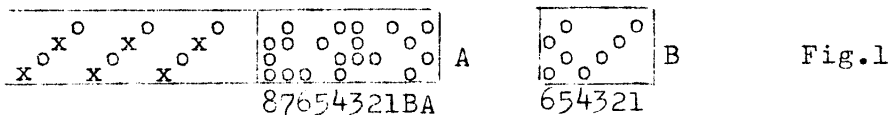
We shall say more about Tissue Weaves as soon as we converge on the same area of interest in the two series of articles. For the time being we are still working with four shafts, and we shall experiment with the possibilities of two layers of fabric woven at different tensions of the two warps.

This time we shall make two sample warps in two different colours, but both of the same count of yarn. In threading we shall simply alternate the colours. Let us then start with the warps.

The first warp, that is the one which is beamed on the normal or first warp-beam, has 280 ends of 8/2 or 10/2 soft cotton of any neutral colour (white, grey, black, ivory, cream). Do not make it very long: a few yards will do.

The second warp, to go on the second, additional warp beam will have the same number of ends (280) but will be about 50% longer and should be made of 8/2 or 10/2 mercerized cotton, or hard twist rayon in any bright colour at all.

The threading draft as in fig.1: "o" - the first warp, "x" - the second warp. Sett of warp: 40 ends per inch (20+20). Reed No.10; 4 ends per dent. Width in reed: 14 ".



The tie-up is designed in such a way that either warp can be on top, and both can be woven in tabby; we have also two stitching treadles: A & B. Since obviously such a tie-up (A) is out of the question on a 4-shaft loom, we must use a skeleton tie-up (B),

exactly as we did in our Double Weave sampler in MW 49, page 5. All treadlings will be given for tie-up A; the reader is requested to translate them for the skeleton tie-up B.

We shall start with a warp-face tabby fabric. Treadling: AB. If we keep both warps under the same tension, nothing remarkable happens. But if we release warp 2, we have a ribbed fabric. If the tension of warp 2 is kept very low all the time we shall have a double-weft fabric (two layers of weft). But if we release the 2-nd warp occasionally we shall have an uneven ribbed effect. We can also use two wefts: one very fine, and another very heavy (as in Rep). By alternating them, and changing the tension, we shall have a variety of textures. Several samples should be made on this treadling.

The next experiment involves two independent layers of fabric. Either of them can be woven on top. Treadling: 8765 gives the second warp on top; treadling 4321 - the first warp on top. Use separate shuttles for each layer, and avoid crossing them at the edges. The weft about the same as the warp.

We release the tension on the second warp, and then treadle 878765. After a while we shall have twice as much of the second fabric as of the first fabric. Let us have one inch of the top fabric, and therefore half an inch of the bottom fabric. Then we change the treadling to 121234. Keep this latter for also one inch. Then start from the beginning and repeat several times. What we have now is a double fabric with one layer very loose on one side, or the other. This demonstrates an exaggerate effect of raised patterns.

We can have also the loose layer all on one side. We start as before: 878765. After one inch we stitch the two layers with one shot on treadle A. Repeat several times. This sample may be later on ironed one way only along the warp, and will give a pleated effect.

The treadling in the last two samples does not need to be exactly as suggested. The weaver may find it easier to weave first one inch of the loose fabric under normal tension, then release the tension on the second warp, and weave half an inch of the first fabric.

Plenty of experiments with different wefts, different tensions, and different ratios of the two layers should be made at this stage. The reader will find them useful later on.
