As we mentioned in the last lesson, there are several ways of treadling which give several symmetrical patterns from the same threading draft. We have described only one of them—corresponding to the term "woven-on-drawn-in" (or "trump as writ"). This first method of treadling is based on a diagonal (or diagonals) crossing the woven piece. We shall call a treadling draft which produces such a diagonal: Basic Treadling Draft. It is basic because all other treadling drafts will be derived from it. Even if we do not intend to weave the pattern corresponding to the Basic draft, we must figure out the treadling, to be able to find other variations of symmetrical patterns.

We found the treadling in the usual way on Fig. 1. The draw-down shows the corresponding pattern. We omitted here both the binder and the tabby ties in the pattern weft (single squares on the draw-down). Thus the draft shows the floats only. This is done so, because the pattern is much clearer when drawn in this way (compare with the last draft in lesson 3).

The treadling draft can be expressed in a numerical form: 2-1x, 3-1x, 4-1x, 1-1x, 2-3x, 3-3x, 4-3x, 1-2x, 2-4x, 3-2x, 4-2x, 1-3x, 2-5x, 3-1x, 4-1x, 3-1x, 2-1x. The first number means the treadle, the second—the number of picks. Thus the draft reads: treadle No. 2—once, treadle No. 3—once and so on.

In all variations of pattern the number of picks remaining unchanged. We change only the treadles.

For instance, in the second variation (the first is the Basic) called Rose-fashion weaving in colonial times, we replace treadle 1 by treadle 4, tr. 2 by tr. 3, tr. 3 by tr. 2, and tr. 4 by tr. 1. WE DO NOT CHANGE THE TIE-UP, neither on the draft nor on the loom, but instead of using for the first pick of weft treadle No. 2, we shall use No. 3 for the second: instead of No. 3—No. 2 and so on. Our whole treadling draft will be as follows: 3-1x, 2-1x, 1-1x, 4-1x, 3-3x, 2-3x, 1-3x, 4-2x, 1-4x, 4-2x, 1-3x, 2-3x, 3-3x, 4-1x, 1-1x, 2-1x, 3-1x. Fig. 2 shows the draw-down of the second variation of the pattern.
The pattern here although symmetrical is completely different, and what is more - it has no diagonal. Because of this lack of a diagonal we cannot find the second variation of the treadling right away, but we have to start with the basic treadling.

Then comparing both treadling drafts: the basic, and the "rose", we shall notice that the second looks very much like the first only so to speak "turned over", or as its reflection in a mirror. On this resemblance between the two drafts is based another method of finding the second variation of the treadling.

First we draw a vertical line through the center of the basic draft (Fig. 3A). Then we transfer the treadling marks from one side of the line to the other (fig. 3B). We use either different colour or different symbols for this second set of marks. Finally we erase the first treadling, or copy the new treadling marks on a new draft (fig. 3C).

Exactly the same result would give a reversed tie-up (12, 23, 34, 41 instead of 41, 34, 23, 12) with the first treadling. But it would not be a very practical solution, when actual weaving is in question.

Many students confuse the changing of treadling marks with changing of the numbers of treadles. They try to count the treadles from left to right instead of from right to left, and are rather puzzled that they still get the same basic pattern. Or they change both the treadling draft and the tie-up, which again gives the original basic pattern. Or they try to find the diagonal in the second variation.

We must remind such students over and over, that the only thing which is changed - is the order in which the treadles are used.

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