

# DRAFTING.

It often happens that the draft contains only the threading and the tie-up. Then the problem arises how to find out the treading, or rather one of the many treadlings possible. When we speak about treading drafts we must distinguish between drafts which give a square, symmetrical pattern, and fancy treadlings which can give any pattern at all. The number of the former is very limited.

When we speak about a square pattern we may remember that the best guarantee that we are dealing with a square is to have two diagonals, which cross each other at the center of the figure at a right angle. The treading which will produce such diagonals is called BASIC treading, and there is only one such treading for each threading draft. The way to find it is to draw the diagonal first so that it would cover a square space right under the threading draft. In fig.1 we have a 1:3 diamond twill draft.

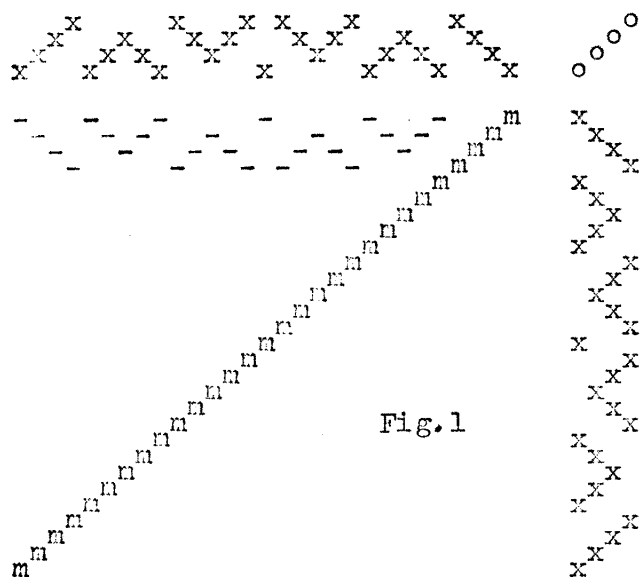


Fig.1

Since each treadle is tied to only one frame, the weft will go only over one warp end. This is easy to check by making the draw-down of one shot of weft on each treadle. Then our diagonal will be made of single squares of the graph paper. The first step then in finding the treading will be to draw a diagonal from the upper right corner to the lower left corner of the draft. Doing it we do not look at the threading draft at all except to locate the beginning and the end of the diagonal. After the diagonal is drawn we can find out square after square which treadle produced each element of the diagonal.

We look up from the first square ("m") to the threading draft and see that immediately above the first square there is a heddle on on frame 1. Since frame 1 is tied to treadle 4, then obviously treadle 4 is the first to be used. Consequently we make a mark on the treading draft right below treadle 4 and in line with the first square. The second square was made by a heddle on frame 2, which is tied to treadle 3, and the mark comes under treadle 3 in line with the second square. The third square: frame 3, treadle 2. The fourth: frame 4, treadle 1, and so on.

When we complete in this way the whole treading draft, we can compare it with the threading draft, and we can see that they are identical, except that the first is horizontal and the second vertical. From this observation comes the expression "woven as drawn in". It is an old term and means literally: treading the same as threading. In the above example the term "woven as drawn in" can be taken literally. But we shall see later on, that it is used often to mean that the treading

is only similar to the threading. The main point is not so much that both drafts are the same, but that they will produce a pattern as close to a square one as possible.

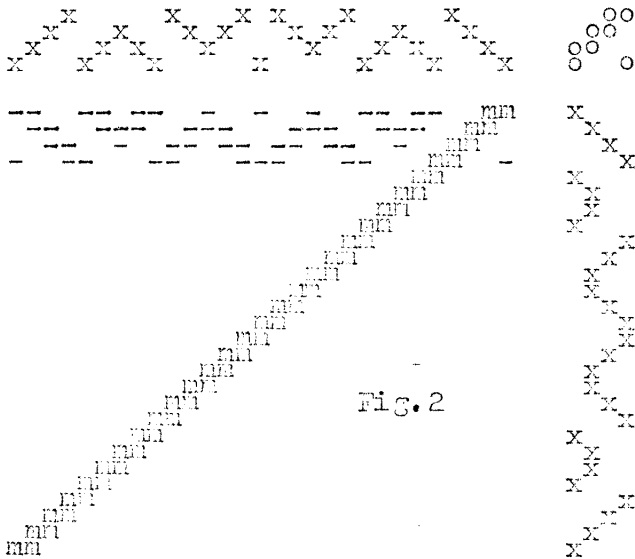


FIG. 2

Fig. 2 gives an illustration of squaring a pattern in such a way that the diagonal will be absolutely straight although the treading draft will be no longer identical with the threading.

Here two frames are tied to each treadle, and consequently the weft will go in most cases over TWO warp ends. The skips of weft which go over two or more warp ends are called "floats". Then we shall draw the diagonal with blocks of two by one (two squares long, one square deep). The blocks or floats will overlap each other by one thread of the warp. Otherwise the diagonal would not have the 45° angle necessary to produce a square pattern. Here again we draw the diagonal without looking

at the threading draft, except to find the beginning and the end of the diagonal which must be in line with both ends of the draft. Then we look

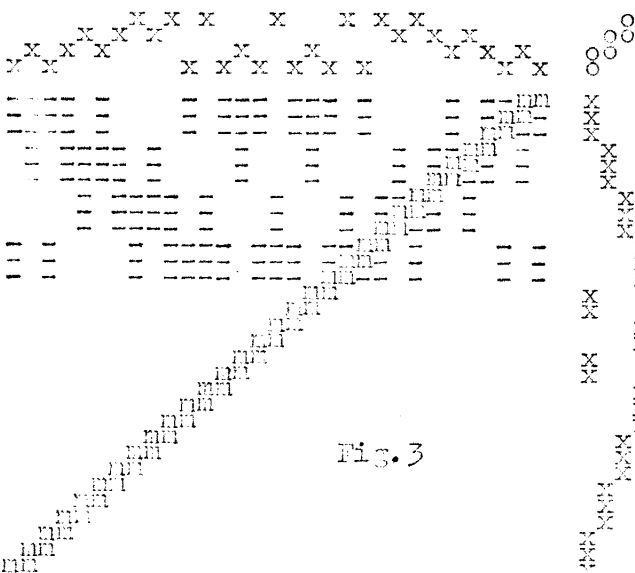


FIG. 3

up from the first block of the diagonal, and we observe that it is produced by the combination of the first and the second frame. The treadle which is tied to these two frames is No. 4. Thus the first mark in the treading draft must be placed directly under treadle 4 and in line with the first block or float. The second block is made by frames 2 and 3. They are tied to treadle 3, so the treading mark comes under treadle 3. The third block requires heddles on frames 3 and 4 - tied to treadle 2 - so the third mark is under treadle 2, and so on until the end of the diagonal is reached.

Here we can see that the treading draft is similar but not identical with the threading draft. Still we call it "woven as drawn in", because the pattern will be square.

Finally in fig 3 we have the same method used for a different draft. Here the treading and the threading drafts are hardly similar, but still they produce a pattern as square as it can be, and this way of treading will be still called "woven as drawn in", although the original meaning has been nearly lost.