Practical Project with an Accidental Draft.

Coat length in heavy wool, two ply, about 800 yds/lb, set 10 ends per inch. Colours: red (R), black (B), dark grey (D), light grey (L), white (W). Warp: L W D R L B D (take two tubes of D, two of L, one of W, one of B, and one of R). Warp seven ends at a time. Use paddle or warping mill.

THREADING DRAFT IS SHOWN IN FIG. 6 WITH THE ORDER OF COLOURS ABOVE THE DRAFT. ONE REPEAT IS EQUAL TO 3½".

\[
\begin{array}{cccccccccc}
L & W & D & R & L & B & D & L & W & D & R & L & B & D \\
\hline
\times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times & \times
\end{array}
\]

Fig. 6

Treading (colours marked above the number of treadles):

DBLRDWDWLDBLRDWDWL
13122132113423421421

The weft is the same as warp. This is of course contrary to the rules, but in case of an irregular structure there is little difference if any.

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PROBLEMS IN TEACHING

LESSON 12

DRAFTING

The next problem is how to get any one of the 64 variations of a three-block pattern directly, without going through the whole process of finding first the eight two-block variations, and then developing the 64, and finally selecting the one we like best. Even on paper the operation would be too long.

When working with 3 block patterns we should either memorise or keep handy: 1-st the rules of producing the 8 basic variations of a 2-block pattern, and 2-nd: the table of the 64 variations.

Let us take as an example variation 4E (page 9 MW 25). This is derived from 1E, which again is the same as E. We go back to lesson 11 (page 10 MW 24) to see how E was obtained. At the bottom of the page we have an explanation: E is a derivative of D. For the time being we do not read any further, but turn to D, just two lines above: "D is the reverse of A". Consequently we go back to A, which is quite simple: it is the pattern squared, or "woven-as-drawn-in".

Now we know what is the first step. We must take our profile, whatever it is, and square it block by block. If our profile is the one in fig.1, the treading (short directions of course) will be: twice tabby (T), once block 1, twice block 2, twice 1, twice T, twice 1, twice 2, once 1, and twice T. It does not matter at this point whether we actually draw the pattern or just write down the treading.
Now we come to "D" which is the reverse of "A", i.e. instead of block No.1 we take block No.2, and vice versa. The result is shown in fig.2, and the treading is: T - 2x; 2 - lx; l - 2x; 2 - 2x; T - 2x; 2 - 2x; 1 - 2x; 2 - lx; T - 2x. The next step is to read the instructions under "E": we replace block 2 by both blocks together, i.e. we add block 1 in the fig.2 whenever block 2 is used. What we get is fig.3, and the treading: T - 2x; 1+2 - lx; 1 - 2x; 1+2 - 2x; T - 2x; 1+2 - 2x; 1 - 2x; 1+2 - 1x; T - 2x.

Now we may forget all about the two-block variations and carry our profile and the last draw-down to the table of 64 variations in lesson 12. We must replace now the tabby part of our draft with a block of pattern. Since we have now three blocks of pattern, and not two, as before, we shall call the lowest line of the profile: bl.No.1, the next: bl.No.2, and the top one: bl.No.3. Our variation has the number 4E. We have already E. What is then 4?

In the directions on page 10 we read "in the 4-th (row) - No.3 (block)". This means that instead of tabby we shall use block No.3. If we do it we shall have Fig.4. Well this is tabby replaced by block 3. But the figure is not symmetrical. Therefore whatever we added in the vertical direction must be also added in the horizontal one. And finally we have Fig.5, which is the pattern we are looking for. The treading is: 3 - 2x; 2+3 - lx; 1+2 - 2x; 2+3 - 2x; 3 - 2x; 2+3 - 2x; 1+2 - 2x; 2+3 - 1x; 3 - 2x.

We are not going to discuss 4 block patterns for two reasons: the number of variations is too high, and the way we get 4 bl. from 3 bl. is exactly the same as the method of getting 3bl. from 2 bl. patterns, which we described right now. For that matter, once we understand how to develop 8 variations into 64, we can work out variations of even a 10 block pattern. And we may remember as well that the old weavers of the 18-th century, although probably illiterate, could solve similar problems quite easily.