

# DRAFTING.

In the lesson No.4 (MW 16) we have discussed a variation of a pattern in overshoot. The basic pattern with a diagonal was changed into another symmetrical pattern, but without diagonals. This was done on a full draw-down which is seldom practical because of the size of the graph-paper required. Therefore in most cases when studying the possibilities of a pattern we do not use the full threading draft - but the profile.

The number of variations of a pattern (on the same threading and tie-up) is much higher than it could be expected. For instance 3 blocks woven in swivel on four frames give us a choice of 62 (sixty two) symmetrical patterns. Number of variations in multi-harness weaving is often astronomical. The whole subject therefore is rather complicated and with a large number of blocks requires a certain knowledge of higher mathematics (permutations). In our discussion we shall limit ourselves to simple profiles where definite directions can be given as to the method of finding all the variations.

We speak only about symmetrical variations, because first: the number of unsymmetrical ones is always unlimited, even with the simplest profile, and second: because symmetrical patterns can be very easily changed and adapted to our requirements, either by distorting them in treading, or by combining several variations into one pattern.

For instance in fig.1 we have 6 variations possible with a 2 block pattern (damask on 10 frames or Summer-and-Winter on 4).

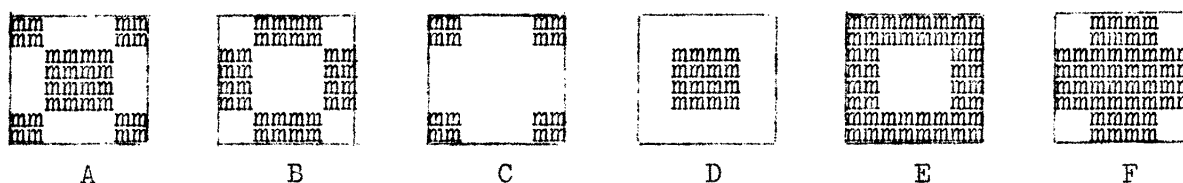


Fig.1

We may never use these patterns but they will serve to figure out other patterns such as:

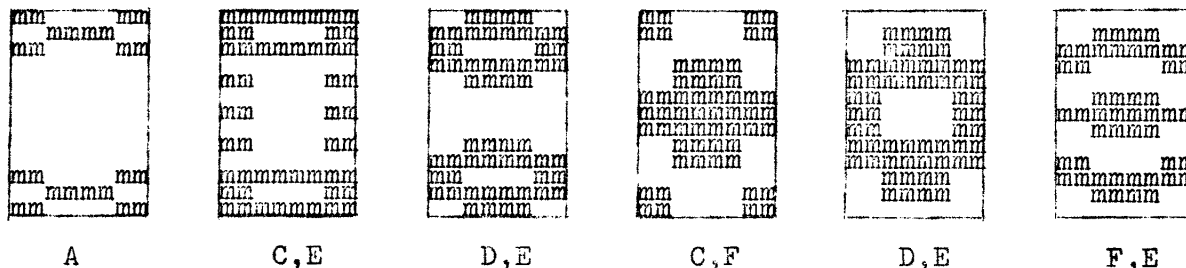
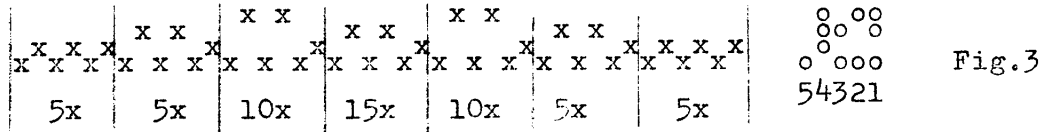


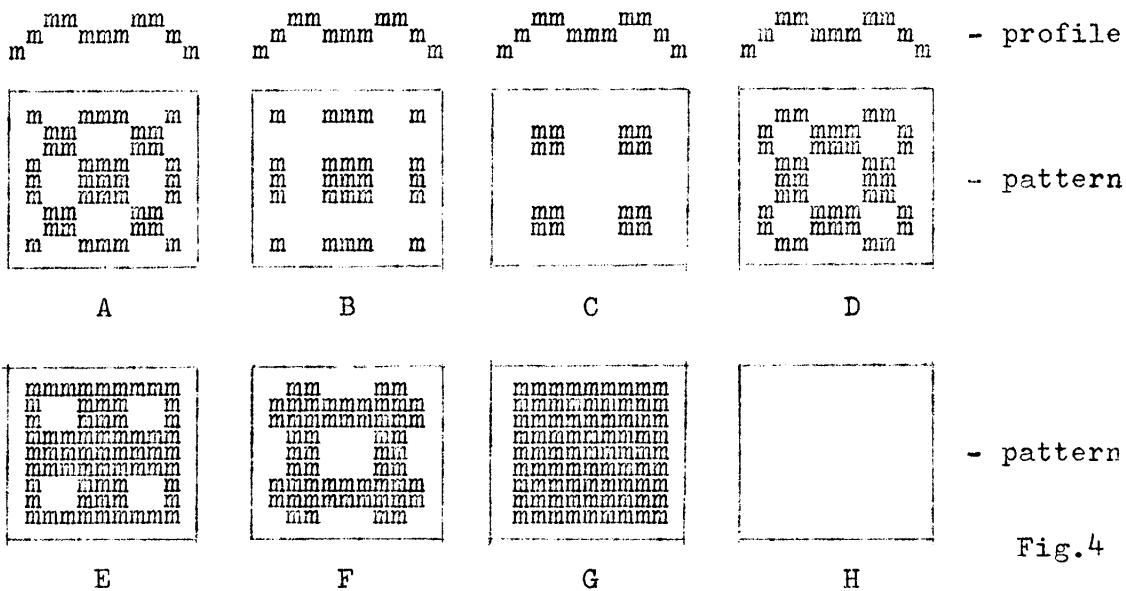
Fig.2

The patterns in fig.2 are all derivate of patterns in fig.1, as indicated under the drawings.

Thus the first step is to find all the basic variations from a profile. Let us suppose that we have a threading draft for Bronson lace as in fig.3.



To make a profile we can take 5 units of the weave for one square, which will make a very small profile, very suitable for our purposes:



The first and the most important variation is A in fig.4. Here the pattern is squared or "woven-as-drawn-in". The profile is squared block by block. We start with the right hand side of the draft. This is one square of plain tabby. Next comes one square of the first block of the pattern; then 2 squares of block 2; then 3 squares of block 1; 2 squares of block 2; one square of block 1, and one square of tabby.

B is the same as A, but where we had the second block, we now weave the same amount of tabby. We may say that it is A minus the second block.

C is derived in the same way from A, but here the first block was replaced with tabby. Thus this is A minus the first block.

D is the reverse of A. Instead of weaving the first block, we weave the second and vice versa. Tabby remains as in A.

E is a derivate of D (and not of A any more). Here we replaced block 2 by both blocks together (treadle 1 instead of 2 in fig.3).

F is also a derivate of D, but here the first block was replaced by the combination of both (treadle 1 instead of 3).

G are both blocks squared together. In our case it is solid lace with a tabby border on all sides.

H is a variation of pattern only from purely mathematical point of view. It is nothing but tabby (both blocks replaced with tabby), and we would not mention it except that we shall need it later on when figuring out three-block patterns.

The table in fig.5 gives directions for treading of all the above variations. T - tabby (treadles 4,5); 1 - first block (treading - 434345); 2 - second block (tr.: 424245); B - both blocks together (tr.: 414145). All other numbers indicate the number of picks of weft.

A :	T - 30,	1 - 30,	2 - 60,	1 - 90,	2 - 60,	1 - 30,	T - 30.
B :	T - 30,	1 - 30,	T - 60,	1 - 90,	T - 60,	1 - 30,	T - 30.
C :		T - 60,	2 - 60,	T - 90,	2 - 60,		T - 60.
D :	T - 30,	2 - 30,	1 - 60,	2 - 90,	1 - 60,	2 - 30,	T - 30.
E :	T - 30,	B - 30,	1 - 60,	B - 90,	1 - 60,	B - 30,	T - 30.
F :	T - 30,	2 - 30,	B - 60,	2 - 90,	B - 60,	2 - 30,	T - 30.
G :	T - 30,	B - 270,					T - 30.
H :			T		330.		

Fig.5

The above method will serve in every case of a two-block pattern with a tabby ground. However it must be remembered that the lowest line of the profile does not count here as a block. Tabby may be used not only in borders but between the blocks of pattern as well as in fig.6. In the subsequent variations this tabby is never changed

into anything else. In the two variations (A and G) shown in the draw-down on fig. 6 the horizontal and vertical strips of tabby show between blocks of lace.

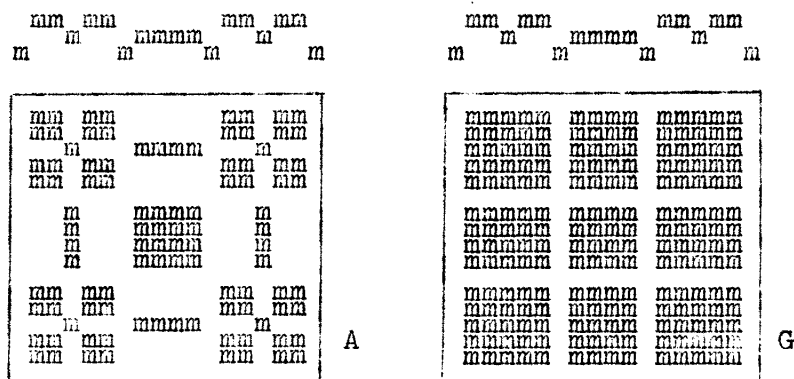


Fig.6

However if this lowest line of the profile represents a real block of pattern which can be used at will, the number of variations increases 8 times.

This case will be discussed in the next lesson of drafting.

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