

# SWIVEL EFFECT IN OVERSHOT.

Swivel weave (compare "Spot Weaves" in the 1-st issue of MW) has one peculiarity, which no other weave possesses - both pattern and ground are woven in tabby. This makes it particularly suitable in all cases where floats of weft or warp are objectionable, for instance in upholstery fabrics. It is true that during weaving there are floats, even very long ones, but they do not produce pattern, appear only at the back of the fabric, and can be either cut off, or left if the fabric is going to be used as upholstery, cushion covers, or in any article with lining, such as heavy curtains, shopping and evening bags etc.

The lining can be made later on, or it can be woven at the same time as the pattern fabric, and further it can be either free and attached at the selvages only, as in circular weaving, or stitched to the fabric at regular intervals. This is however of secondary importance.

The swivel weave proper is woven on Spot-weave drafts, but with a different tie-up. It is best adapted for small patterns widely spaced on a tabby background. It may be used as well for all-over patterns of three blocks (for 4 frames) which can be woven singly or in any combination. These blocks do not overlap each other.

On the other hand the same effect can be obtained by using any overshot threading, with the following restrictions: the blocks will overlap by about one half of their length (exactly as in 4-block crackle), and they cannot be combined i.e. woven simultaneously. To compensate for these limitations, we have four and not three blocks on a four-frame harness. The patterns used here should be the same which give good results with crackle weave.

To compare the patterns in overshot and in swivel we shall examine two draw-downs: one in classical overshot, and another woven on the same threading draft in swivel. In both cases we shall omit the tabby in the ground (binder in case of overshot).

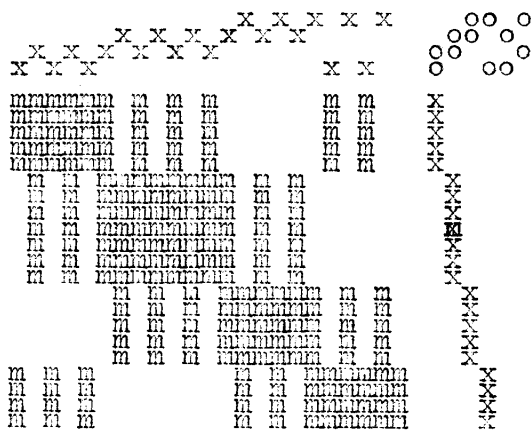


Fig. 1 Overshot

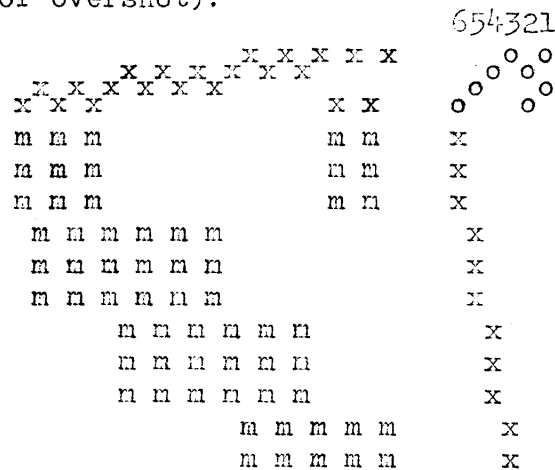


Fig. 2 Swivel

The shots of pattern in case of swivel are spaced more than in case of overshot, because there are TWO tabby shots in between instead of one. The long floats in weft are here on the back of the fabric. The binder can be omitted when changing from one block of the pattern to the next, since these are written on opposite tabby sheds anyhow, or

two shots of tabby can be continued throughout.

Another way of treadling, which will bring the pattern shots closer is to put the binder in the same tabby shed with the pattern. For instance: pattern weft on treadle 6 (fig.2), binder on tr.4, then binder on tr.1. In this case the whole treadling would be: 6,4,1,6,4,1 6,4,1,3,5,2,3,5,2,3,5,2,1,4,6,1,4,6,1,4,6,1,2,3,5,2,3,5. Pattern weft on underlined treadles, binder on other treadles. This is of course only a fragment of a pattern but the same principle will apply to the whole pattern.

Exactly as in the case of crackle woven as summer-and-winter, where pattern blocks have the texture of S+W, and the half-tones - the texture of crackle, the swivel can be woven with pattern blocks in solid tabby, and half-tones in tabby alternated with binder, in which case the same draft will be treadled as follows (fig.3).

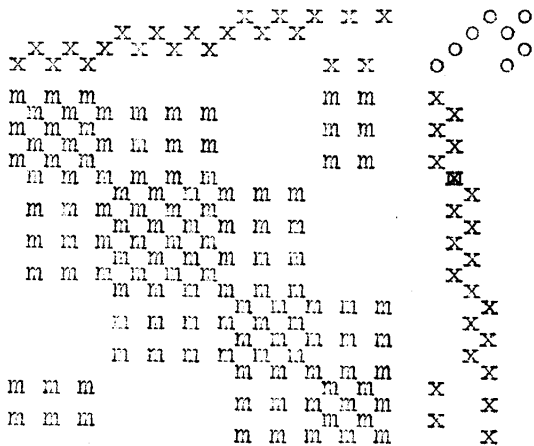


Fig.3 Staggered swivel

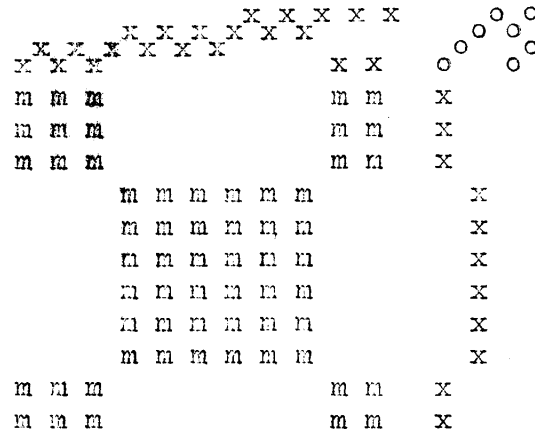


Fig.4 swivel on opposites.

Here any overshot pattern may be reproduced without distortion, on the condition that the floats on the back of the fabric will not be cut. Otherwise the cutting might take more time than weaving.

Finally the same draft may be woven on opposites (fig.4) even if it is not written on opposites, but then the pattern will be quite different from the original one.

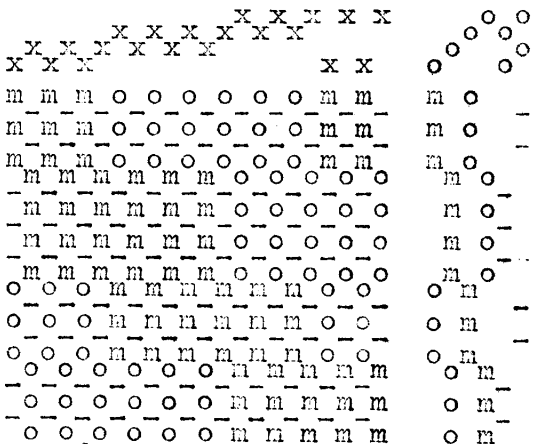


Fig.5

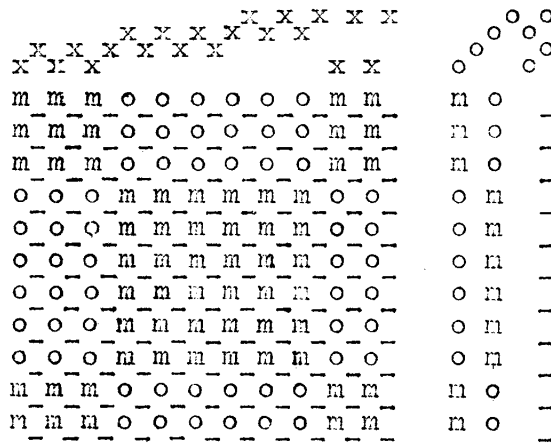


Fig.6

Colours can be introduced in the pattern in two different ways. When weaving on opposites as in fig.4, one block of pattern can be woven in one colour, and the other block in another colour, the binder

being always neutral. Or two colours can be used in two complementary sheds, followed by a shot of neutral binder. The second method will work with overlapping blocks as well as on opposites (figs. 5 and 6).

In all methods of weaving described above, the sett of warp and the grist of the binder and of the pattern weft should be selected so that the blocks of pattern could be squared without "cheating" i.e. without subtracting or adding shots of pattern to get the depth of blocks equal to their width.

When weaving in one colour only, two grists of binder may be used for better results. The binder which comes into the same shed as the pattern weft should be of the same grist as the latter, when the binder dividing the shots of pattern should be much lighter. This calls for three shuttles. For instance in fig.2 the binder used on treadles 1 and 2 must be finer than the one on treadles 3, 4, 5, and 6.

The sett of warp depends on the grist of the fine binder, the pattern weft, and the beating. It should be rather close to the sett for plain tabby, perhaps a shade more open.

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## WEAVING TERMINOLOGY.

### The "TWO-HARNESS METHOD".

The ambiguity of the word "harness" (see 1-st issue of MW) becomes most annoying when the term is applied to the "two-harness method". Until quite recent times it could mean only one thing: weaving with two sets of heddle-frames, one with plain heddles, and one with long-eye heddles. The two sets (two harnesses) are about one foot apart, and the front one has long-eye heddles, when the back one has ordinary heddles but rather longer than usual. One set weaves the pattern (usually but not always the back harness), and the other weaves the ground. This method is rather involved but very economical, because the total number of frames is much smaller than in case of a single-harness loom (for the same weave and pattern), the tie-up much simpler, as well as the threading. But it requires a high degree of skill in setting up and gating (adjusting) the loom.

On the other hand what is described now, particularly in the United States, as "two-harness method" is nothing else but weaving on two frames, which is at the best a method suitable for tabby only, and even then not very good. If anything else but tabby is attempted the "method" becomes the pick-up - inefficient, time-consuming, and needless torture. Except of course in tapestry weaving, but then why call it by a new and misleading name, when this kind of weaving is probably thousands of years old. It should be called "weaving on two frames", exactly as walking should be called "walking" and not "two-foot-transportation method".

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