

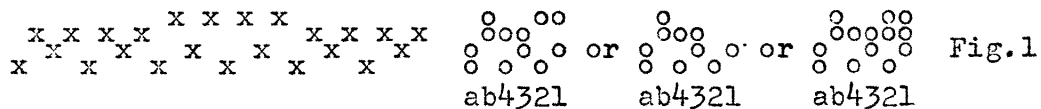
SPOT WEAVES - 3

DOUBLE : SUMMER-AND-WINTER, PAPER SPOTS.

Any spot weave which uses two heddle-frames for the ground (fore-leaves) belongs to this family of weaves. The best known of them is Summer-and-Winter developed probably in America during the colonial period. Another weave rather neglected by handweavers is the old English or perhaps Scottish "Paper Spots". Finally there is one double spot weave used in Finland. We are not aware of any other variations of this weave known to the handweavers, although it is easy to develop a number of them working on the same principle.

Summer-and-Winter

This weave is too well known to describe its theory at any length. It can have blocks of any size, because the two ground frames divide the blocks into a row of floats of equal length of 3. Fig.1 shows a typical draft:



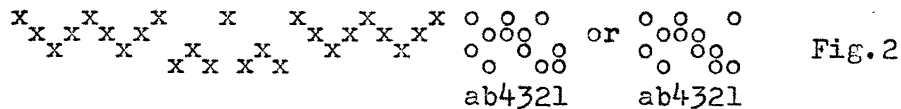
treadling: 4a3b4a3b2alb2alb4a3b4a3b.

With more blocks the tie-up gets rather involved, and often a direct tie-up is advisable.

As a rule the yarn for binder (treadles: a and b) is finer than the pattern yarn, and of a different colour. But S+W may be woven with one shuttle only, on the condition that the weft and warp are of two decidedly different colours. The treadling then is as follows (with any of the tie-ups in fig.1):

1-st block: 1212ab1212ab 2-nd block: 3434ab3434ab
 or: 12a12b12a12b 34a34b34a34b

It happens that a weaver who works mostly with so called "standard" tie-ups does not like the idea of changing it when occasionally weaving S+W. Then the draft on Fig.1 may be transcribed into a continuous one of the diamond-twill type, by exchanging frames 1 and 4:



The treadling with the first tie-up will be the same as in fig.1. With the second the treadle 2 becomes 1, and 1 becomes 2. Thus: 4a3b4a3b1a2b1a2b4a3b4a3b.

The S+W draft when written in its "twill" form shows that there is a very great similarity between S+W, crackle, and twill, and as a matter of fact all three can be woven on the same threading, and tie-up. Summer-and-Winter can be quite logically called "crackle on opposites" i.e. crackle which uses only two blocks (with four frames), and in which the blocks do not overlap one another. Consequently real crackle can be woven on any S+W threading by changing the treadling. In our example on fig.2 second tie-up the treadling will be: 1a1b1a1b3a3b3a3b1a1b1a1b, or 2a2b2a2b4a4b4a4b2a2b2a2b.

If we want to weave S+W as tiny diamond-twill, all we have to do is to follow the diagonal, or weave as-drawn-in. Blocks of 2 are taken once, and blocks of 3 twice: 4a3b3a4b4a3b3a4b1a2b2a1b1a2b2a1b4a3b3a4b4a3b3a4b.

Although in all three cases we shall have the same pattern, the texture will be quite different. Perhaps the most interesting is the last treading, but it requires a lot of attention, since a single mistake will change the texture of the remaining piece of weaving, exactly as in all twills with binder.

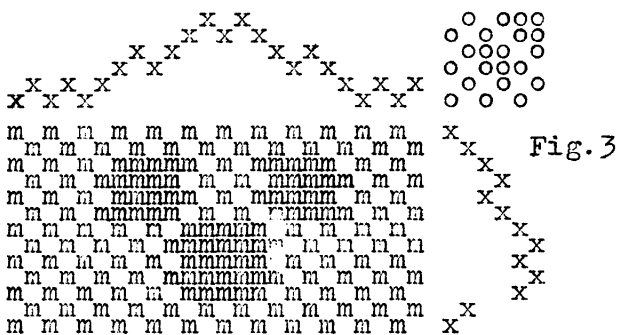
S+W is particularly satisfactory in "bound" weaving, i.e. in weaving on opposite sheds. Since the floats are all of the same length, and the alternate rows are staggered, there is a possibility of obtaining a uniform and very smooth surface. The technical requirements of this weave such as strong and open warp, and soft and heavy weft are generally known. Less clear to many weavers is the fact that in bound S+W the treading is always the same regardless of pattern. On this condition depends smooth texture of the fabric. When changing from one block to another we change only the order in which come the colours, but not the order of the treadles. The treading in case of fig.1 will be (b - black, w - white): 1b, 3w, 2b, 4w - as many times as necessary to square the first block, then for the second block: 1w, 3b, 2w, 4b. In this case after the last white line of the first block comes the first also white line of the second block which makes a more or less distinct mark across the fabric. We can get rid of it only at the expense of the uniformity of texture by omitting one of these two picks. As a rule what we do here is to select the least striking colour for joining the blocks. In our case it would be white, and the treading should be accordingly: (4w,1b,3w,2b) x N, 4w, (1w,3b,2w,4b) x N, 1w, (3w,2b,4w,1b) x N, 3w, (2w,4b,1w,3b) x N, 2w. "x N" or times N means as many times as necessary the whole combination of four treadles, then comes just ones a treadle with white, and the next group.

This difficulty does not arise when four colours are woven at the same time. For instance two light colours (w - white, g - grey) for one block, and two dark ones (b - black, n - navy) for the other block: 1b,3w,2n,4g - for the first block, and: 1w,3n,2g,4b - for the second.

The same principle will be applied to a larger number of blocks and colours (compare "Information Service" in our 2-nd issue).

Paper Spots

This weave as all double-spot-weaves has two frames (usually but not necessarily the front ones) reserved for the ground. But in addition it requires 2 frames for each block of pattern. Consequently only small square spots can be woven on a 4 frame harness. It has been called "paper" because of unusual smoothness of the "spots" which have twice as many floats per inch square as the plain spot weave of the same count. As an example we shall examine a 6-frame draft (fig.3). It is obvious from the draw-down that the floats in warp and weft are not interlacing on the whole area



of a spot. Consequently the spots must not be too large, and there should be not too many of them or the fabric will be rather loose.

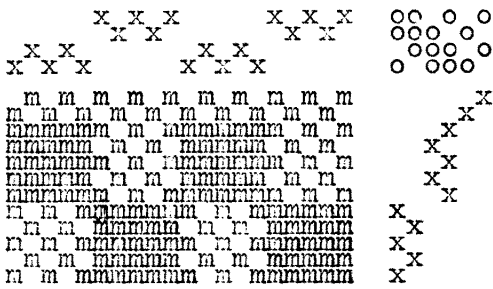


Fig.4

Theoretically the paper spots can be woven as "all-over-spots", and then the weave can be executed on 4 frames (fig.4), but the edges will be wavy and the whole fabric not too firm. Much better results from a purely technical point of view will give just one block, particularly if the tabby part is widened, as in fig.5. This is the only satisfactory way of weaving Paper spots on four heddle-frames.

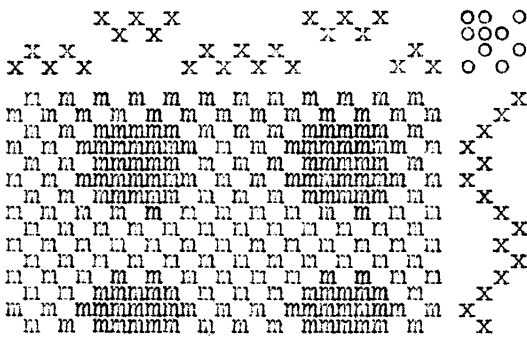


Fig.5

This weave can be "turned" in exactly the same way as lace, or plain spot weave i.e. by changing the tie-up. For instance if we want one block (fig.3, 2-nd block) with vertical floats, we turn the corresponding ties (fig.6). The same can be done for the other block so that either of them can be woven with vertical or horizontal floats. Then however the total number of treadles will be rather high (10 in our case).

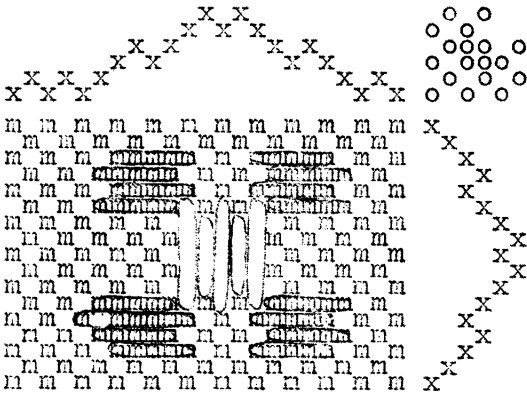


Fig.6

The blocks of pattern (or spots do not need to be as close together as in fig.3 or 6. They may be separated by the ground as in fig.7.

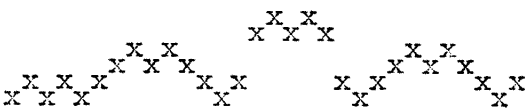


Fig.7

Since the floats in spots cover completely the fabric, so that only weft or warp are visible, interesting colour combinations may be obtained by using one colour for the weft and another for the warp. In turned paper spots we shall have two pure colours in the spots, and a third (being the mixture of these two) in the ground.

The weave may be used in the same way as lace, i.e. for place mats, table covers etc., with the exception of all-over pattern (fig.4). Drafts 5 and 7 give the

strongest fabric, drafts 3 and 6 a little more open in the spots, when 4 must be reserved for curtains and light woollen shawls - even then it would be advisable to make samples first trying different yarns and sett of warp, before attempting any larger project.

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