SPOT WEAVES - 2

What we understand now by single spot-weave is very nearly the same as previously described Swivel, with the difference that the floats form the pattern and are never cut. They are vertical on one side of the fabric, and horizontal on the other. There is no distinction between pattern-weft and binder. The same yarn is often used both for weft and warp. The weave itself is too well known to deserve any particular attention, and we shall discuss only its less known variations.

This particular kind of spot-weaving is called single, because it requires only one frame for the ground (fore-leaf in old British terminology) which leaves us three frames for the pattern in a four-frame harness, or seven in an eight-frame harness. When only small patterns divided by tabby are woven, the tabby spaces between patterns require another frame. Thus only two-block patterns can be woven on four frames.

The size of units of a spot-weave depends on the length of floats required, on the grist of yarn, and on the yarn itself. Short floats are better for linen, when other yarns can stand slightly longer floats. Theoretically the shortest float is one of 3, but it hardly shows at all, and looks more like a mistake (scoff, or blotch) than anything else. On the other hand very long floats make the spot weave look like overshot, and it is rather pointless to imitate the latter in spot weave, which requires more frames for the same number of blocks. Thus for purely practical reasons floats of five, or seven are used here most often. The unit of weave in the first case is 5 (fig.1), in the second - 8 (fig.2).

<table>
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<th>x x x</th>
<th>x x x</th>
<th>0 0 0</th>
<th>x x x</th>
<th>x x x</th>
<th>0 0 0</th>
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<tbody>
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<td>x x x</td>
<td>x x x</td>
<td>x x x</td>
<td>x x x</td>
<td>x x x</td>
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<tr>
<td>ground</td>
<td>unit</td>
<td>unit</td>
<td>ground</td>
<td>unit</td>
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</tr>
</tbody>
</table>

Fig. 1  Fig. 2

The reason for returning to the frame 2 at the end of each unit is to "cut" the floats to the standard size, when one unit (e.g. 13131312) is used several times in a row, or when different units (as 131312 and 141412) are woven simultaneously. If units are always used singly, this last part (12) can be dispensed with, as in fig.3.

\[
\begin{array}{cccc}
  x & x & x & x \\
  x & x & x & x \\
  x & x & x & x & x & x & x \\
\end{array}
\]

\[
\begin{array}{c}
  0 0 0 \\
  0 0 0 \\
  0 0 0 \\
\end{array}
\]

tr.: 434343; 2424141 424243434

Fig. 3

Here the units of the weave are only 4 in length, but they give floats of 5, exactly as in fig.1.

What is called "Lace", and what means of course "imitation lace" (since lace cannot be woven) is not so much a weave, as an effect due only partly to the weave, but mostly to the yarn used. The holes in the fabric which produce the lace effect appear not on the units of weave, but between these units. Hence the condition of using at least two units in a row both in the threading and treading drafts.
What happens here is that the floats in weft (5, 7, 11, and 13 - fig. 4) do not separate the warp ends: e, f, g, h, i, and k, l, m, n, o - just the contrary, they try to bring them together. The floats in warp: f, h, l, and n (on the back of the fabric) have the same effect on the weft. If the yarn is elastic it may overcome this tendency by its own tension. If it is not, it will form bunches of loose threads, thus leaving empty space between the four units. This is why every hole in the lace looks like a tiny 4-pane window.

**Huckaback on spot threading.**

The draw-down of a spot weave with units of 6 is strikingly similar to the huckaback. Thus a variation of huck can be woven on a spot-weave threading. Whether this variation is a real huckaback or not, remains open for discussion, but it looks very much like the real thing. The only difference between this variation and the original weave is that we have here an additional line of tabby (t - fig. 5) both in warp and weft. False basket weave as well as turned huckaback can be woven in the same way, but it is only fair to admit that there is no particular advantage in weaving huckaback or its derivates on spot-weave threading.

**Single face spot weave.**

In certain cases floats are objectionable when appearing on both sides of a fabric, as in handbags without lining etc. In spot weave (but not in lace) they can be easily eliminated on one side. For instance in fig. 1 the floats in the warp will disappear when instead of treadling 32324313134 etc, we shall treadle: 43243243 31431 etc. The rule for floats on one side only is to treadle both tabbies (3 and 4 in fig. 1 or 3) between shots of pattern. It is advisable to use finer weft on these two tabby shots, or still better one of the usual grist, and the other (treadle 3 in the above tie-ups) much finer.

**Turned floats.**

As we have mentioned before, the floats are vertical on one side of the fabric and horizontal on the other. Sometimes it becomes desirable to have floats in both directions side by side. For instance an "O" in spot weave looks more convincing if the side floats are vertical and lower and upper ones - horizontal (Fig. 6 a), instead of all of them being in the same direction (fig. 6 b). Or they can radiate from one center (fig. 6 c) forming a small cross.
One way of turning the floats is to replace the tie-up by its opposite (e.g. Fig. 7 a and b). By doing this we actually reverse the whole fabric. With weaves which have different direction of floats on both sides (twills, huckaback spot) we reverse the floats at the same time. It would not work with weaves which have the same direction of floats on both sides (overshot, crackle, summer-and-winter). Consequently we need two sections in our tie-up: one for vertical, and one for horizontal floats.

The tie-up "a" (fig. 7) gives vertical floats with a sinking shed, and tie-up "b" horizontal ones. Tie-up "c" combined both. Treadles 3 and 4 with tabby 6 gives vertical, and 1 and 2 with tabby 5 horizontal floats.

To weave any of the small patterns shown in fig. 6 we can use draft and tie-up on fig. 8. The example shown is the "Q" mentioned before (fig. 6 a). If the cross (fig. 6 c) is preferred, the treadling will be: 5646466156464665. Or we can have an "I": 65156464651565, and finally an "H": (more or less): 56363652525636656.

Then another question arises: can we have both kinds of floats in one row? The answer is not so obvious, but we can try. Since both floats use a different tabby, we could combine them to supplement each other as far as the ground is concerned, and keep the tabby treadles for spacing the pattern blocks.

For instance (fig. 9) we can alternate an "X", and an "O", one in vertical, the other in horizontal floats. The two sets of floats are not quite centered, and there seems to be no way to get around this difficulty. A partial remedy is to use longer floats in both directions (units of 8), then the difference won't be so manifest, although it will be still there.

Since it is possible to have the two kinds of floats in the plain spot weave, the same principle applies to the lace, the only difference being, that the units of weave must be repeated at least twice both in threading and treadling. The general effect, provided that long floats (of 7) and fine, glossy yarn are used, is not unlike damask. As an example worth trying here is a suitable draft:

```
  x x x x x x x x x x x x  o o o o
  x x x x x x x x x x x x x  o o 654321
tr.: 65656523232652323236414156414152323236523232365665.
or: 656565232326523232365641415641415652323236523232365665.
```