SPOT WEAVES • I • SWIVEL

The group of weaves known under the name of "Spot" contains several variations which at the first sight have little in common with each other, and nothing "spotty" in their appearance.

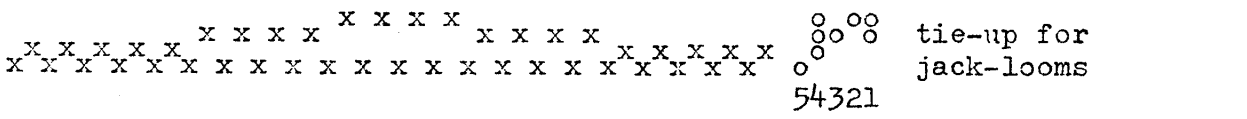
The earliest spot-weaves were woven as swivel, and usually had rather a large number of small patterns in one colour uniformly distributed on a plain background of a different colour. Here the name of spots was quite justified. When the number and size of spots increased so that they formed a solid pattern, the weave was called "All-Over Spots" which seems to be a contradiction in itself. Further development produced derivates which had spots but of the same colour as the ground, and eventually no spots at all.

The only characteristic common to all spot-weaves is that a part of the warp is used exclusively to weave the ground, when the other part produces the pattern. The first obvious conclusion from this peculiarity of spot-weaves is that they always have more frames in the harness than blocks in the pattern. Thus single spot weave has one extra frame reserved for the ground, double spot-weave - two frames, triple - three frames. Theoretically there can be "quadruple" and "quintuple" spot-weaves, but they are little used if at all.

As we mentioned above, swivel weave was the earliest and incidentally the simplest of all spot-weaves. Strangely enough however it has been nearly completely forgotten, when other derivative weaves survived under different names to this day. Thus we shall start our survey of spot-weaves with swivel.

Frankly, we do not know when and where the term "swivel" originated. Small shuttles such as might have been used in this technique were occasionally called swivels. Perhaps here is the connection.

The principle of swivel weave is just the opposite to overshot. The floats do not form the pattern, but are either hidden on the back of the fabric, or cut off. The part of the pattern weft which tabbies with the ground (of secondary importance in overshot) is the only one which shows in a finished piece of weaving. This effect can be produced in a number of ways. Here is one:

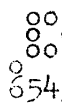


Four different small patterns can be woven: $\begin{smallmatrix} & m & \\ m & & m \\ & m & \end{smallmatrix}$, $\begin{smallmatrix} m & & m \\ & m & \\ m & & m \end{smallmatrix}$, $\begin{smallmatrix} mmm \\ m\ m \\ mmm \end{smallmatrix}$, $\begin{smallmatrix} m & \\ mm & m \\ & m \end{smallmatrix}$, and other not symmetrical variations.

Treadling for the first pattern will be: 5,4 (tabby) as many times as needed, then 5,4,2 - 4 times, 5,4,3 - 4 times, 5,4,2 - 4 times, and again 5,4 until the next pattern. Ground weft on treadles 5 and 4, pattern weft - on 1, 2 and 3.

This way of treadling is best when the floats are going to be cut off, so that the fabric will look the same on both sides. If floats can be left on the back, another tie-up and

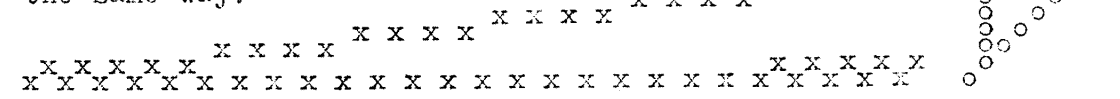
treadling may give better results (the same draft and the same pattern):



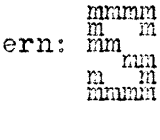
tr.: tabby - 5, 6. pattern: 3,4,6 - 4 times
1,2,6 - 4 times, 3,4,6 - 4 times, etc.
1, 3 - pattern weft, 2,4,5,6 - ground weft.

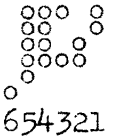
Here only one shot of tabby is used after each shot of pattern. This is because treadles 1 and 2, and then 3 and 4 give already a full tabby shed. The floats may be cut on the back of the fabric, but not very close ($\frac{1}{4}$" or so).

Drafts for larger number of blocks are written in the same way:



The tie-ups however should be adapted to the pattern. For instance if we select a small letter "S" to be woven on the above draft, the standard tie-up would require simultaneous action of four treadles, which is rather hard on the weaver. An improved tie-up will have one treadle for each block:





4,5,6 - 4x, 3,5,6 - 4x,
tr.: 2,5,6 - 4x, 1,5,6 - 4x
3,5,6 - 4x, 4,5,6 - 4x.

654321 pattern weft on 1,2,3 and 4.

The patterns should be rather large and not too involved. Cutting off floats from an intricate pattern is a long and exacting job. The smallest component of any pattern should be at least 8 warp ends long. If it is any shorter it does not show well, and it may be easily damaged. Some of the colonial motives such as Slates, Snowballs, and Trees can be easily reproduced in swivel.

Since swivel weave has no units in the proper meaning of this word, short drafts may be written in the same way as for overshot. E.g.:

$$30^{8}12_{8}12_{8}60\ 10_{8}10\ 60^{8}12_{8}12_{8}30$$

where the first line corresponds to frames 1 and 2, second - to 1 and 3, third - to 1 and 4, etc. An alternate method consists on counting ends on pattern frames only. To indicate that this particular method hes been used we underline the draft with one heavy line corresponding to the first heddle-frame:

$$\underline{15^{4}6_{4}6_{4}30\ 5_{4}5\ 30^{4}6_{4}6_{4}15}$$

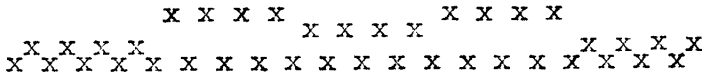
This way of writing short drafts is probably the best, since it can be used directly for threading. Profiles are too long if drawn full size. On the other hand they are very usefull when exploring the possibilities of a pattern. Consequently they must be cut down to a fraction of their original size (compare the article about variations of pattern in the same issue).

Swivel can be woven on drafts more suitable for counterbalanced looms. As a matter of fact it can be woven on nearly any draft which has a tabby shed, and a rather large pattern, but this kind of "pseudo swivel" does not belong to the Spot family, and we shall discuss it later.

The technical requirements of swivel weave are few. The warp is set closely, and the weft beaten firmly enough to obtain a 50:50 tabby. The pattern weft should be slightly heavier than the ground but not much heavier or the pattern will be distorted. The colours selected for the pattern must be dark or rather striking to show at all. The floats are cut after weaving about $\frac{1}{2}$" from the fabric. After ironing and laundering they are cut again with very sharp scissors as close to the fabric as possible.

The only difficulty in weaving is the tendency of the ground and pattern wefts to twist together when they come into the same shed. It helps when the tension of both upper and lower part of the shed is exactly the same, when the shed is not opened too wide, and when the weft is soft and not too slippery.

Swivel with cut floats may be used for table linen, towels, scarfs, curtains, and even dresses. Floats should be left uncut for upholstery and cushion covers.



WHY DO WE WEAVE ?

In our era of mechanised civilisation, hobbies based on more or less ancient crafts seem rather incogruous. We have such modern pastimes as photography, radio, telescope building, miniature railway, which are all in touch with the latest progress of science and go step in step with the march of time. Now then can we explain that quite a large part of humanity takes delight in walking just in the opposite direction? In producing unnecessary goods in the most primitive and hard way? calling relaxation exactly the same occupation which was called hard work two or three centuries ago?

The answer to these questions is neither obvious, nor simple. The two following factors are usually given as an explanation. First that our emotional life develops or rather changes at a much slower rate than our intellectual life, which created the present Western civilisation. Emotionally we are neither adapted to, nor satisfied with our modern way of life, particularly with its speed and its superficiality. Emotionally we are much more attached to the past, than we realise. And crafts take us back to this past, to a deliberate and harmonious way of doing things, without any regard to the time involved, without a thought about efficiency. The second factor is connected with the fact that in most cases our work, such as performed in a civilised society, presents but a small fragment of the complex process of production. Whether it is publishing, or making refrigerateors, baking bread or even defending the country - the work of one man is so intricately interwoven with the work of others, that in itself it does not seem to make sense. Thus the worker is constantly frustrated, has no sense of achievement, and no pride in looking at the finished product. Now, how it all changes when he turns to crafts. He is performing the whole miracle of creating things all by himself, he develops a sense of responsibility since there is nobody to blame when he fails, but he takes all credit for success also. He is