ANDIHER

TEXTURE WEAVE

We are not going to repeat here all we have already said about texture, 3D, accidental drafts etc. We refer our readers to the following articles: "The Third Dimension" 17/4, "Accidental Weaves" 26/1, "Texture" 34/1, and we shall start again where we left off in the "Accidental Weaves".

Although the method described there is absolutely safe if used with discrimination, there are craftsmen who just cannot trust such "unscientific" techniques as shuffling cards to make a draft.

On the other hand the method discussed in the "Third Dimension" of mixing several small weaves in one draft is really less satisfactory than the accidental drafts because it is more likely to produce too long floats or stripes in the texture.

Is there another way of getting the impression of an irregular texture without risk of floats, stripes, and unexpected patterns? Yes, there is, and we shall describe it now. It is not as good as accidental drafts from the point of view of irregularity of texture, but on the other hand it does not involve any corrections in the draft itself, and no necessity of making detailed draw-downs.

It is however best adapted to mixed warps, where several different yarns, or at least several different colours are used.

The method is based on the same principle as Double Diagonal Twills (MW 28/4). It has two different twills used alternately in the same threading draft. The twills may be biased or broken, but it is better to have at least one of them broken, otherwise it may be next to impossible to avoid all traces of diagonals in the texture.

How is it done?

Fig.1 shows two twills: A, and B, and then their combination C. "A" is a slow diagonal, and "B" a broken twill: 234, 341, 412, 123 - it could be even called "overshot", since the overshot is a derivate of twill.

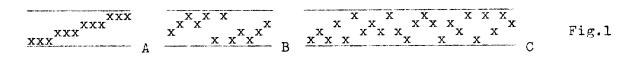
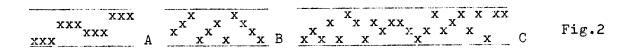


Fig.2 shows another example. Here "A" is another slow diagonal twill, but broken this time, and B is a dornick herringbone.

Now let us see what will happen when we start weaving one of these drafts. The tie-up is not a problem. Since both components of the threading draft are rather plain twills, there is every

reason to use a standard tie-up. We won't have any tabby of course. But it is a little harder to decide on the treadling. It would be



a mistake to follow the threading (weave as drawn in) because then we could not avoid having a diagonal, and besides this, one repeat of treadling would be much too long to be practical. The best way is to experiment with treadlings on the loom. In fig.3 and 4 we have two draw-downs made with the draft in fig.2 C. The treadling in fig.3 is: 45361526, and in fig.4: 61645253.

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Fig.3		Fig.4	

Both are satisfactory inasmuch as the repeat of treadling is short (8) and easy to follow, but even at the first glance we can see that the treadling in fig.3 gives a very poor texture. First there is a very distinct suggestion of waviness if not of an outright pattern (diagonals on the left, and small diamonds on the right); then the floats in warp are rather too short. There is nothing like that in fig.4. Not a trace of a diagonal, and the floats in warp are about the same as the floats in weft (2,3,4 in warp, and 2,3,5 in weft).

However there remains the fact that a comparatively short repeat in threading (24) means perhaps a little too regular texture. And this is why we have said that this method is at its best when mixed warps are used. It is not enough however to mix several yarns at random. In the case of our repeat of 24 in threading, nothing would change if we use for instance 3, 4, 6, or 8 warp ends in one repeat of warping. This is because 24 can be divided by all these numbers, and therefore each yarn or colour would find itself exactly in the same place in each repeat of threading. But if for instance we shall use 5 warp ends in one repeat of warping, then the same warp end will go into a different heddle 5 times before it comes back to the same place in threading, after 120 warp ends.

In other words if the number of warp ends in one repeat of the warp is 5,7,9,10,11,13 etc - the combined repeat in the texture

of the fabric will be much longer than the repeat of the threading alone. Thus if we use 5 different ends in warping we have 5 times 24 or 120 ends. With 7 \neq 158 ends. With 9 - 72 ends. With 10 - 120 ends. With 11 - 264 ends, and so on.

In one repeat of warping the warp ends do not need to be all different. Even if only one end is different from the rest, it will do the trick.

Thus the general rule is that the number of ends in one repeat of threading should not be divisible by the number of ends in one repeat of warping, and it is still better if both numbers cannot be divided by a third smaller number. Thus in our case of a repeat of 24 in threading, a repeat of warping of 16 ends would be of little value, because both numbers can be divided by 8, and the repeat in texture would be of only 48. In the table below we give the best numbers for both repeats:

Threading:	Warping:
16	5,7,9,11,13,15.
18	5,7,11,13,17.
20	7,9,11,13,17,19.
22	5,7,9,13,15,17,19.
24	5,7,11,13,17,19.
26	5,7,9,11,15,17,19.
28	5,9,11,13,15,17,19.
30	7,11,13,17,19.

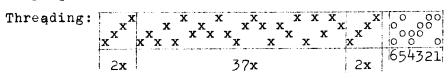
Longer repeats will be usually multiples of the above ones, and the same repeats in warping may be used.

PRACTICAL PROJECT.

Upholstery fabric in mercerized cotton with 3D effect. Warp: width as required, for instance 30"; sett: 30 ends per inch, total No.of ends: 900; reed No.15, 2 ends per dent, or No.10, 3 ends per dent.

Yarn: cotton No.10/2. Colours: I - ivory, B - beige, D -dark beige (or light brown), W - white.

Warping: 5 ends in one repeat. Order of colours: I, B, D, W, B.



Weft: $\frac{70}{2}$ cotton, ivory and dark beige twisted together (doubled). Treadling: 1,5,2,6,4,5,3,6; or 1,5,2,5,4,6,3,6;
