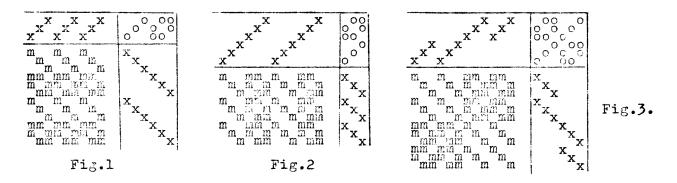
## DIMITY.

In old books we find a peculiar weave based on 1:2 twill, which sometimes is called Dimity Cord, sometimes Dimity. Its simplest variation can be woven on 3 shafts as in fig.1.

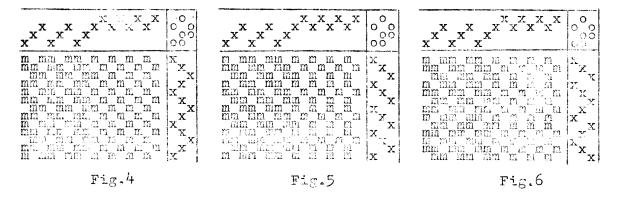


Here the cords or ridges run parallel to the weft. If we want them along the warp, then we must use 6 shafts as in fig.2. But if we have already a 6-shaft draft, then why not go a step further and combine both? If we do that, we have a very familiar draft in fig.3. But it is not a corded fabric any more. It is the simplest of the "diapers" (turned twills), the precursor of the "dornick weave" (1:3 turned biased twill), and of damask.

The question now is: can a similar effect be obtained with only 4 shafts? The answer must be "yes" or the article would have never been written. We have here really two problems: 1-st corded effect in warp; and 2-nd: patterns in 1:2 twill similar to the one on fig.3. Should we succeed in this second case, we shall have another imitation of damask woven on 4 shafts (the first being S-&-W).

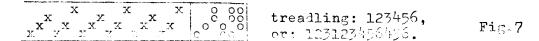
DIMITY CORD. Here the answer is easy. We have a choice of vertical stripes alternately in tabby and 1:2 wave; or of stripes in 1:2 biased twill plus an imperfect tabby. The width of the stripes is very important: if they are narrow, the effect is of corded fabric; if they are wide - the effect is rather of vertical crepe. Fig. 4 shows 1:2 wave, and perfect tabby; fig. 5 - biased 1:2 twill and imperfect tabby; finally in fig. 6 we have a combination of both, which may be the best solution.

The draft in fig.4 will give either cord or crepe depending on the width of the stripes. No.5 will show more difference between stripes because of the obvious diagonal in the twill part of the draft, but less of the corded or crepe effect. This is due to the fact that in fig.4



there is 50% more take-up on the warp in tabby than in twill, when in fig.5 the take-up is the same. Finally fig.6 being a compromise, produces a better twill effect than No.4 but less perfect tabby.

For those who would like to weave the classical Dimity on four shafts instead of 3, the following draft is suggested:

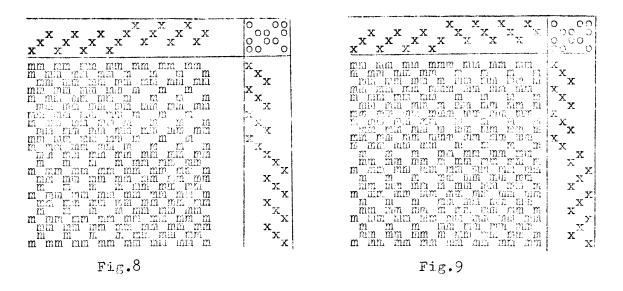


The Dimity fabrics in any of the above drafts except No.3 will drape well in one direction - parallel to the stripes. This must be taker into consideration when making a project.

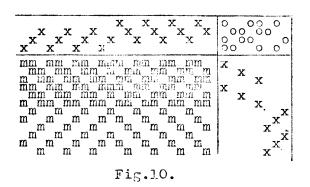
exactly as damask. What makes it different is that the diagonal in the twill cannot be broken, no matter what we do. We can have Wave, herringbone, or diamonds, but it is impossible to get broken twill or dornick. Strangely enough if we try to weave a two-block 1:2 twill on only four shafts, at least part of it gets broken, or if not broken - confused. The difference between the two blocks of pattern is much less obvious than in 6-shaft dimity, and thus the pattern becomes very faint. On the other hand the fabric is stronger than any damask, and even stronger than crackle or summer-&-winter, because the floats are the shortest possible - the same as in 1:2 twill. Only plain tabby is stronger than dimity. Perhaps then it is worth while to experiment with this forgotten weave, particularly if it can be done on 4 shafts.

Fig. 8 shows one way of doing it, and fig. 9 another, and probably a better one because the effect of texture is enhanced by the

changing diffection of the diagonal. Unfortunately the draft in fig.9 has one drawback: longer floats of 3 between the blocks (none in fig.8).



The patterns for dimity are the same as any two-block patterns for summer-&-winter, double weave, damask etc. That is the traditional patterns. For more modern effects we can add to the tie-up in fig.9 3 treadles and then weave both blocks together or no blocks (ground). This would mean 8 treadles and a compound tie-up must be used.



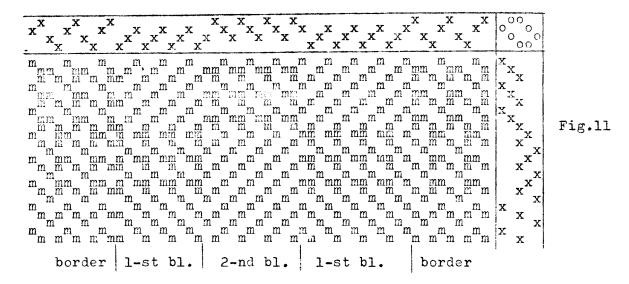
Unfortunately we cannot get the corresponding texture in the vertical direction. The situation here is identical with S-&-W woven on four shafts which can also give us: one block, second block, both blocks, and no blocks. But we can have some sort of borders shown in fig.ll(next page). This draft is an example

of a simple pattern plus borders, and it shows the back of the fabric.

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The art of weaving 3-shaft twill is nearly lost in handweaving. This is because we follow the Asiatic development of the loom, and completely forgot its European background. In central Europe 3-shaft looms were quite common some 2000 years ago. When Ceasar invaded Gallia the 1:2 twill was made there on a commercial scale. In recent archeological research similar twill has been discovered around Baltic Sea, and it

must be of about the same age. We can only speculate on the construction of 3-shaft looms of this period - but they were most probably



counterbalanced, although the balance could not be very good from our point of view.

It is an interesting point in the development of the weaving loom, how the numbers influenced the constructors. We find it natural to have either 2, 4, 8, or 16 shafts i.e.: 2 x 2 x 2 x 2 etc. This is an obvious sequence for counterbalanced looms, but not for jack-type or double tie-up looms. In Scandynavia we have 5-shaft looms, and even 10-shaft ones, although they have nothing in common with the decimal system.

Should no 3 be a logical development after 2 shafts? Then in Rome 12 was the dominant number and we might expect 3, 6, and 12 shaft looms. Such looms undoubtedly existed until the new Oriental influences replaced them with the sequence 2, 4, 8 etc.

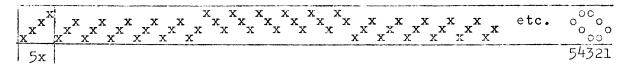
This of course is only an introduction into the field of 3-shaft weaves. There is much more to it, and not all can be translated into our 4-shaft looms, and drafts.

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## PRACTICAL PROJECT.

Table runner. Single linen both ways.

Threading: Start with 5 repeats of 1234; then follow the profile replacing each square on the lower line by: 123123123123123 and adding 12 at the end of each block; and replacing each square of the upper line by: 432432432432 and adding 43 at the end of each block. Finish with 5 repeats of 3412. The beginning of the threading draft (read from the left) will be:



The warp: No.15 linen, 30 ends per inch; reed No.15; 2 ends per dent. 823 ends; 27" wide in reed.

The weft: the same as warp but of a slightly different colour, for instance: warp natural, weft bleached, or half-bleached.

Treadling: 54321 - 4 times; then follow the profile 543543543543543

for each square on the lower line, ending with 54, and 123 123123123 for each square on the upper line ending with 12. Repeat from A to B until the runner is of the desired length, then finish from B to the end of the profile, and add for the border: 21543 - 4 times.

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## WEAVING TERMINOLOGY

We have explained quite a while ago that the word "harness" is very often used in a wrong meaning. Harness means all heddle-frames (shafts, leaves) together with the uppr tie-up. Therefore very few looms have more than one harness (draw-looms being an exception). In colonial times one heddle-frame was called "leaf". Unfortunately this expression is now completely forgotten. For several years we tried heddle-frame, and harness-frame. Both these terms are artificial, and they did not catch. To avoid further misunderstanding we shall use from now on the term SHAFT. It has three advantages: it is old Anglo-Saxon word; it is short; and it is used in industrial weaving both in U.S.A. and in British Commonwealth.

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