

in the draw-down on fig.2. There are 4 floats in weft and 4 in warp crossing the line between blocks. With a different tie-up (fig.3) the blocks will be cut on two sides and "uncut" on the two remaining ones. Finally with the tie-up in fig.4 we have all blocks cut properly. We may notice at the same time that the diagonal in fig.2 and 3 runs in the same direction in both blocks of the pattern, when in fig. 4 twill 3:1 has a left hand, and twill 1:3 - a right hand diagonal.

When instead of a biased twill we have a broken one, the situation remains the same, i.e. the same tie-up will serve in both cases. However the treadling must be 1,3,2,4 or 4,3,2,1 but not 1,2,4,3 or 2,1,3,4. In other words the first and the last treadle in the repeat of a biased twill must remain the same when changing from biased to broken twill. Fig.5 shows what happens when we do not follow this rule. Here the blocks are cut in the vertical direction but not so in the horizontal. There are 4 floats in warp which cross the line.

In figures 2,3,4. and 5 we have omitted completely the pattern harness since in all four it is always in the same position.

Thus we have found two principles which seem to guarantee the success in cutting the blocks: 1-st the diagonals in two adjoining blocks must run in opposite directions; 2-nd each repeat of broken treadling must start and end with the same treadle as in the biased treadling. We shall see later how to apply these principles to other twills than Gornick.

WEAVING TERMINOLOGY.

Counter-marche. (fr.Fr."contre-marche") It is hard to say whether the confusion started already in French or only later on in English. Originally "marche" meant the same as treadle (thus "Marchure" means treadling), and a counter-marche was the same as a lamm. Now in double-tie-up looms we distinguish between the short lamms, and long ones, calling the latter - counter-marches. There is logic in that "counter" because the long lamms move in the opposite direction to the short ones, but "marche" is positively wrong. Why not call it "counter lamm", or just long lamm?

The double-tie-up loom is called accordingly "counter-marche loom", which really means a loom with lamms (any lamms). "Double-tie-up" itself sounds artificial, but "Swedish" which is supposed to mean the same, really does not mean anything at all. All kinds of looms are and always were used in Sweden.

Sinking and Rising Sheds. The terminology itself here is flawless. But its application not so. For instance the jack-type looms are obviously of the "rising shed" type. It means that the whole warp remains "sunk", and the sheds open by rising a part of the warp. The same applies to the table looms. But it is wrong to say that a counter-balanced loom works on the principle of "sinking shed". The shed opens in two directions. Each treadle no matter how tied will pull down one part of the warp and rise another. If necessary it can even leave some of the warp ends in the neutral position, as for instance in two-harness method (MW 13).
