

The Curling of the Selvages in Fulling

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It is well known that this nuisance has often led to differences of opinion between weaver and fuller, so that it would seem that a few remarks upon the subject are called for.

Curling of the selvages in fulling occurs chiefly in goods which are not woven alike on both sides, one being weft and the other warp, like twill, cross twill, sateen, and so on. The curling takes place towards that side upon which the weft floats, whether that is the face of the cloth or the back, and is due to the greater inclination of the floating weft to crumple. This is particularly the case when the milling machine is so adjusted that the goods pass through the trough without the beating mechanism being in action, the goods being thereby fulled more in the width than in the length. The curling of the selvages happens very quickly, according to the adjustment, and it does not take long before the fabric has rolled together like a roll of paper. It is not of much use to open out the piece or stroke down the curled selvages with the thumb, for the goods in a short time are in the same state again as they were. The next thing that happens is that the fabric is less

felted along the selvages because they are always inside and are hardly worked over by the cylinder. This drawback, which can almost drive a fuller to despair before the goods have been finished, can be met in only one way, and that is by weaving the selvages in a different way from the fabric itself, making the weave the same on both sides.

The plain weave and its derivatives here come into consideration, Figures 1, 2, 3 and 4. If the weave of the ground does not require too much weft, that is if the plain weave of the selvage causes no trouble, the weave shown in Figure 1 is sufficient, but if trouble is caused then the weave of Figure 2 or 3 must be adopted. The weave of Figure 2 always requires two picks in a shed and they lie close together. In the weave of Figure 3 one pick falls in each shed, the selvage threads, however, always have the same position in pairs and the picks lie comfortably beside one another. The weave of Figure 4 takes up even more weft and is especially suited for selvages with backing weft. The weave of Figure 5 can be used in place of that of Figure 2 or 3 as conditions require. In fabrics in which the same number of ends always

form upper shed or lower shed the selvages can be allowed to work in the harness, for they will not curl. This applies also to double cloths in which the upper and the lower warp always work equally.

It is further advisable, especially when the

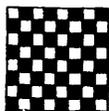


Fig. 1

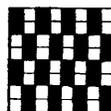


Fig. 2.

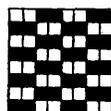


Fig. 3

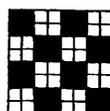


Fig. 4.

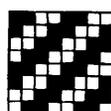


Fig. 5

cloth is a sateen weave, to try to keep the selvages no thinner than the fabric itself. A thicker selvage has been found to curl less than a thin one.

Goods which do not have a suitably woven selvage and consequently curl readily during fulling must be well opened out during the operation more often than is usually done.

For instance, if the throat before the entry channel has been considerably worn away or the entry channel itself is worn, then the goods are much more inclined to curl.

One good way of preventing the goods from curling is to double the piece as a bag, with the face inside, and stitch the lists flat together with twine. Then curling cannot happen at all, however the selvages may be. If there is too much air in the goods thus sewn together, the seam must be opened a little to let the air escape.

The selvages of goods which are fulling by the more or less severe action of the beating mechanism do not curl, even if the goods are one-sided, but they fold over as a rule so that they partly lie double. It is therefore advisable always to use one of the weaves mentioned above so as to be definitely certain of not meeting with the drawback.