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REVERSIBLES. (Harness and Jacquard Work.)

(Continued from December issue.)

(b) DOUBLE FACE REVERSIBLES.

The same are used more particularly in the woolen trade for men's and women's overcoats, golf capes, ladies' coats and costumes, for motoring coats, and for rugs.

The feature of these reversibles is that the face and back differ from each other in color and sometimes also in weave, texture and material. By a suitable construction of the fabric it is possible to produce, for example, a reversible skirt, cape, cloak, etc., made up in such a way that the wearer of the garment may appear at one time in modest brown, and at another occasion clad in the tartan of her clan.

In the same way, one of the sides of the fabric may show either entirely or predominating wool, the other worsted; or cheviot on one side, merino on the other.

For this reason, in some instances, reversibles present a problem that is absent from the making of regular double cloth reversibles and for which reason, in connection with such fabrics, a third warp may have to be used, known as a binder, centre or tying warp. The same refers most often to a high count of cotton warp, placed between face and back structure, not being visible on either side of the fabric. The tying is then done by passing said centre warp where stitching has to be done, over a pick of the face ply and under a pick of the back ply.

The most effective reversibles are undoubtedly those made with face and back quite distinct from each other, in cloth, color, and quality. They give the true effect of a lining. The cloth that brought them into prominence in the form of golf capes was made in this way, and it still remains the best example of a good double face reversible. For a lady's or gentleman's overcoat nothing looks better in the way of a reversible than a face made of thick cheviot yarn in fancy mixture and a back of a small handsome check; and for a reversible costume a cheviot or merino with a back of worsted is unsurpassed.

A few examples showing the construction of these weaves accompanied with their fabric section showing the interlacing of the warp-threads with the filling, will be of interest.

Arrangement 1 Face: 1 Back.

Fig. 41 shows us such a double face reversible constructed under the following details:

1 Back $\left\{ \begin{array}{c} \times 2 \\ 1 \text{ Binder} \end{array} \right.$ 1 Face $\left\{ \begin{array}{c} \times 2 \\ 1 \text{ Back} \end{array} \right\} \times 2$ 1 Binder 1 Face $\left\{ \begin{array}{c} \times 2 \\ 1 \text{ Back} \end{array} \right\} \times 2$

14 threads in repeat of pattern.

Face warp see *full* type Back warp see *empty* type Binder warp see *diamond* type.

ARRANGEMENT OF FILLING.

See color scheme b given on left hand side of weave.

1 pick Face

1 pick Back

2 picks in repeat of pattern.

Diagram of the weave formation is shown at ε , the various kinds of crochet type used indicating the building up of the weave.

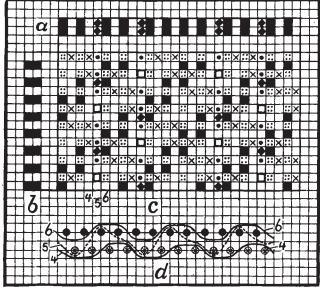


Fig. 41

Rule: Indicate the different systems of warp and filling on your design paper; see color scheme a for the warp and color scheme b for the filling.

(1) Insert weave for face ply on its own system of threads. We used the 4-harness twill, left to right, see *full* type.

(2) Insert weave for back on its own system of threads. We used the 4-harness twill, right to left, *i.e.*, reverse direction of that of face, with the result that when viewing face or back of the woven fabric it will show the twill running in the same direction, left to right; for this weave see *cross* type in Fig. 41.

(3) Raise all the face warp-threads on every back

pick, see *stenciled* type.

Procedure thus far expl

Procedure thus far explained will produce two independent fabric structures which now have to be combined into one fabric by means of the binder warp thus:

(4) Binder warp in its regular plan of weaving as a stuffer warp, in order to rest in the centre of the two fabric structures, must be raised on every back

pick (see dot type) and lowered on every face pick (see empty type).

To use this binder warp for interlacing the two

piles of fabric structure:

Raise the binder warp-threads after a given motive over a face pick when the joining face warp-threads

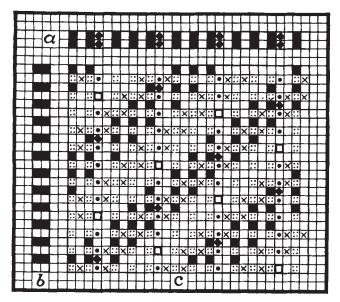


Fig. 42

on either side are up at the same pick; see diamond type in our weave plan.

Next lower the same binder warp-thread after a given motive below a back pick covered on either side by a face pick, *i.e.*, the warp-thread must be down for three successive picks in order to hide the stitching; see *empty* single square *heavy* outlined type.

The section of a fabric interlaced with weave c, is given in diagram d, being more particularly given to show the working of the binder warp, showing the interlacing of

Warp-thread 4 of weave c and which refers to a back warp-thread,

Warp-thread 5 of weave c and which refers to a binder warp-thread, and finally

Warp-thread 6 of weave c and which refers to a face warp-thread.

Face picks are shown by black circles Back picks are shown by shaded circles

Picks in section d, taken from left to right, equal in value picks in weave-plan read upwards, i.e., from bottom to top. This will show us binder (dotted) warp down on pick 2 in section d which equals the empty heavy outlined square in weave c on the same pick. The same binder thread in turn on pick 5 (see section d) interlaces over the face filling (see diamond spot in weave c) and thus unites the two plies into one fabric structure, as clearly shown in section of fabric by means of dotted line which is representing said binder thread. This interlacing of the binder warp, once into each ply, is repeated every eight picks. Two repeats, warp and filling ways, are given to better show up the formation of the weave.

Weave Fig. 42 has again warp and filling arranged 1 Face: 1 Back, using after every 6 warp-threads (3 Face 3 Back) one binder warp-thread.

(a) Arrangement of warp

(b) Arrangement of filling

(c) Complete weave; repeat 28 warp-threads and

Type used in the construction of the weave corresponds to that used and explained in connection with the preceding example, hence no explanation necessary. Weave used for the face ply is the $\frac{3}{3}$ 6-harness twill, whereas for the back ply the $\frac{2}{2}$ 4-harness twill is used.

Arrangement 2 Face: 1 Back.

Fig. 43 has been designed to explain the subject:

- (a) Arrangement of warp 2:1, with a binder thread added every six threads.
 - (b) Arrangement of filling 2:1.
- (c) Weave, using the $\frac{2}{2}$ 4-harness twill for the face and the plain weave for the back. Repeat 14 by 12.
 - (d) Fabric section, showing the interlacing of

Warp-thread 3, a face thread

Warp-thread 4, a binder thread and

Warp-thread 6, a back thread.

(c) This is a mate weave to weave c, having the interlacing of the binder warp slightly changed, i. c. using the other possible chance at our disposal of lowering binder warp. The effect produced by this change of stitch is readily seen from section f.

Besides the combinations thus explained, others are met with, but the principle of their construction remains identical. In some instances, when dealing with coarse heavy counts of yarn for the face, as some times used in golf capes or similar fabrics and where a fine lining is desired, the combination of face and back then changes to 1 Face: 2 Back, 2 Face: 3 Back, etc.

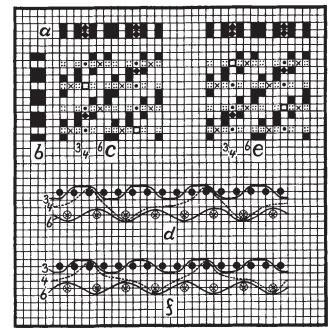


Fig. 43

For soft-finished capes and opera cloaks in a good quality of merino stock (where price does not enter so conspicuously into the problem) and for travelling rugs and motor cloths, the $\frac{3}{3}$ 6-harness twill for both piles, or $\frac{2}{2}$ 4-harness twill on one ply and the $\frac{3}{3}$ 6-harness twill for the other ply, are very useful weaves.

(To be continued.)