

A STUDY IN WEAVE FORMATION.

HOW CRÊPOLINES ARE MADE.

The same refers to Worsted Dress Goods, and with reference to their weave are *2-up warp-rib effects* in which the regular order of the interlacing of warp and filling is so broken up as to impart to the face of the fabric the characteristic *rib-crêpe* effect.

HOW TO CONSTRUCT THESE WEAVES.

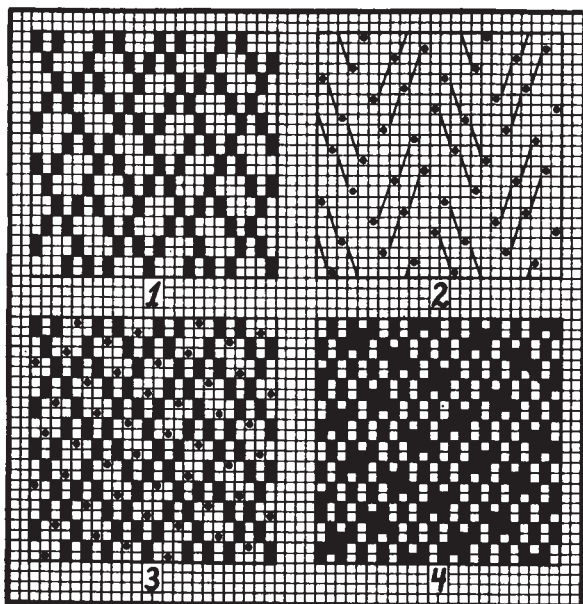
This will be readily explained by means of referring in detail to Figs. 1, 2, 3 and 4 and which explain the construction of such a Crêpoline weave, repeating on 12 warp-threads and 12 picks.

(1) Place your 2-up warp-rib well distributed after a motive selected for this purpose all over the repeat of the weave; see Fig. 1 *full type*. Every warp-thread in this weave stitches uniformly the same $\frac{2}{2} \frac{2}{8}$ in one repeat (12 picks) of the weave.

(2) Stitch your large floats equally and regularly distributed, *i. e.*, one warp-thread as much as the rest. In this manner we stitched the warp float of "over 6 picks" in Fig. 1, to 3 *down* 1 *up* 2 *down*, giving us in turn the irregular 12 harness satin as shown by means of *dot type* in Fig. 2. Every warp-thread in this weave stitches uniformly 1 *up* 11 *down* in one round of the weave.

(3) Combine the rib weave as well as the extra stitching weave in one Crêpoline weave for the loom. This is shown in Fig. 3, using the same style of type for indicating each weave, as was used before.

(4) Crêpolines are warp effect fabrics, *i. e.*, the warp forms the face of the fabric. Weave Fig. 3 has been constructed filling up in order to be able to more clearly show the construction of the weave, hence



empty squares in weave Fig. 3 have to be considered as warp up, resulting in weave Fig. 4, shown in one kind of type to more clearly show the weave-effect as produced on the face of the fabric.

Figs. 5, 6, 7 and 8 show another example of such a Crêpoline weave, the same repeating on 16 warp-threads and 16 picks.

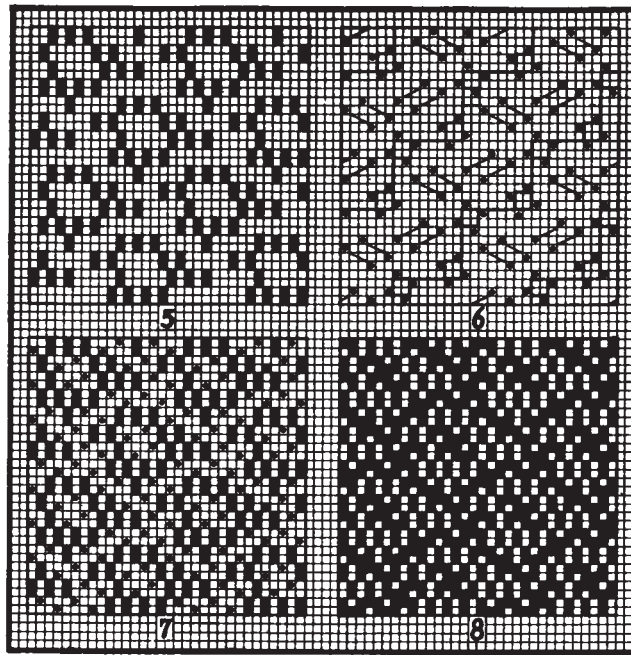


Fig. 5 shows disposition made of the 2-up warp rib on 16 by 16 repeat; shown in *full type*.

Fig. 6 shows the stitching used for tying down the long floating warp-threads; shown by *dot type*.

Fig. 7 shows the combining of Figs. 5 and 6 in one weave, using corresponding characters of type.

Fig. 8 shows the weave as used in the loom, weaving the fabric face up, *i. e.* weave Fig. 7 painted out risers for sinkers.

In the same way as thus explained in connection with the two weaves given, any number of new, similar combinations may thus be obtained.

Construction of Standard Fabrics.

For warp, use a lustrous or demi-lustrous material, either crossbred or mohair.

Textures most frequently met with in imported goods are:

TEXTURE #1.

Warp: 2/40's worsted, crossbred.

Reed: 32½ with 2 ends per dent.

Filling: 48 picks per inch, 20's worsted, crossbred.

TEXTURE #2.

Warp: 2/40's mohair.

Reed: 32 with 2 ends per dent.

Filling: 56 picks per inch, 35's lustre worsted.

TEXTURE #3.

Warp: 2/40's mohair.

Reed: 35 with 2 ends per dent.

Filling: 59 picks per inch, 36's lustre worsted.

TEXTURE #4.

Warp: 2/38's worsted, crossbred.

Reed: 34 with 2 ends per dent.

Filling: 60 picks per inch, 38's crossbred.

TEXTURE #5.

Warp: 2/40's mohair.

Reed: 34 with 2 ends per dent.

Filling: 60 picks per inch, 32's worsted, crossbred.

TEXTURE #6.

Warp: 2/48's worsted, fine crossbred.

Reed: 39 with 2 ends per dent or 26 with 3 ends, if necessary.

Filling: 56 picks per inch, 32's worsted, crossbred.

REVERSIBLES.

(Continued from January issue.)

Points on the Construction of Double Face Reversibles.

While it is of the greatest importance to use the proper weave for these fabrics, there are other considerations to be taken into account before a fabric which will be a seller and command a good price can be obtained. It is well therefore to refer to some effects that are hard and in some cases not possible to be made successfully. For instance, a pure black face and white back in connection with a fabric requiring fulling is a hard and most likely impossible proposition to produce. The fulling and for a fact even the scouring, would cause the fibres of one side to work through, *i.e.*, show through on the other side, even if the chafing of heddles and reed during weaving would not have accomplished this before.

In some instances the most unlikely thing may occur, but such cases are scarce. For example, a certain mill received orders for a double faced reversible of a navy blue face and white back. The first piece, a sample piece, against expectations proved a success and an order for 10 pieces was taken, but when in their manufacture the unlikely thing did not repeat itself, and the mill had job pieces, *i.e.*, seconds on hand. Oxford face and white back may be made; oxford face and light grey back is quite safe.

When strongly contrasted reversibles are required, it is advisable to set the cloth a little better than for ordinary contrasts, and to full them a little less. In some cases, too, it is safer to twist the light color yarn a little harder in order to reduce its liability to open in the fulling process. It is the fulling process which tends to work the fibres from one ply, through the fabric onto the face of the other ply.

To make a pure white face with a pink back would be rather risky, but white with a pink check may work out all right, for instance using:

| | |
|-----------------|---------------|
| 6 inches white. | 1 inch pink. |
| ½ inch pink. | 1 inch white. |
| 1 inch white. | ½ inch pink. |

Thin reversibles require very close attention if they are to be well done. The most difficult are those with an equal number of ends on each side. The difficulty is reduced provided the face end is a little thicker than the back, and is still less if the face is woolen and the back worsted.

An easily managed thin cloth can be made of one end 3 run woolen face, and two ends 2/60's worsted back. In this make the comparatively thick woolen

threads swell in the fulling, and spread themselves over the worsted.

The greatest trouble on thin cloths is with a bright over-check on the back. If the cloth is woolen on both sides, the checking color may be made of worsted; and if that is not possible, the bright color may be twisted harder to reduce its liability to open in the fulling. Even in the case of a worsted back, bright checking is less likely to come through, provided the yarn is twisted harder.

A light colored face in a fabric made with kempy wool or with long fibres of strong wool, used in connection with a dark colored back, is an impossible cloth to produce.

Provided the designer is at liberty to choose his own styles for the back, he can avoid dangerous combinations without altogether sacrificing good effects. If, for example, he has to make an oxford face, with checks of black and white on the back, in a cloth that is likely to allow the check to shine through, it will be advisable for him to avoid large masses of either color in his designs. While checks of 2 and 2, 4 and 4, or 6 and 6 may be safe, such as 16 and 16 or still larger checks may show through just enough to produce the shadow of a check on the face of the cloth. Larger effects can be made by working on the overcheck idea, say 4 and 4 for 3 inches and 2 and 2 for 3 inches; or various sizes of 3 and 3 and 1 and 1, or 2 and 2 and 1 and 1, will be all right—for if the white should show through, there not being any large mass of either color at one place, the effect will be just enough to make the face somewhat light all over, but there will be no check showing through on the face.

Another safeguard not to have the back show on the face is to have one of the colors common to both face and back.

Precautions quoted of course refer more particularly to fabrics of a thin texture. A well-balanced heavy textured cloth, made with one end of heavy count of yarn on face and 2 ends of a fine count yarn on back will be perfect in most any combination of colors. There is neither much danger in an end-and-end thick cloth made reasonably well.

A class of fabrics of these double face reversibles known the world over are the Scotch tweeds. The famous Bannockburn tweeds are made of cheviot, and the very best dark heather over-coatings are produced in Sutherland Cheviot wool. For less highly colored cloths the various qualities of merino are employed, which produce a finer looking, smoother, and softer handling fabric. A feature characteristic of a fabric made of good merino stock is the clear and clean appearance of the plain colors that compose the ground—an effect only to be obtained by the careful finishing of fabrics made of good wool. A good merino woolen cloth does not need bright color; neither does a good cheviot, but where bright color is wanted cheviot shows the best. A very large proportion of tweeds are made with very little fancy color and in small designs. The average consumer does not like a conspicuous color, and prefers a design rather under than over 2 inches in size, and yet he must have distinction. It is this that constitutes the greatest difficulty of the tweed designer. Everyone knows it is much easier to make something distinctive in a large design and a high color than to make something different in a small design and a quiet color. Loudness is easier produced than quiet effects.