MANUFACTURE OF NARROW WARES.

Ribbons, Trimmings, Edgings, Etc.

(Continued from October Issue.)

Shading of Weaves.

For this purpose either twills or satins are employed, the latter being the ones most often used.

To produce a shaded weave, paint its foundation weave, filling effect, all over the desired repeat of the

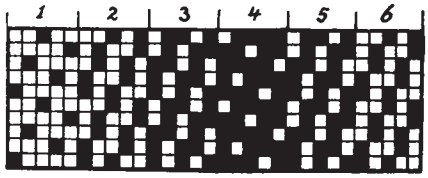

Fig. 41

new weave combination, after which separate the latter into the required number of divisions, to suit the scope of the foundation weave as well as the value of shading desired.

If using a foundation of a large repeat (for example the 8-harness satin) we can produce a more delicate shading as compared to one of a smaller repeat (for example the 5-harness satin) since the former

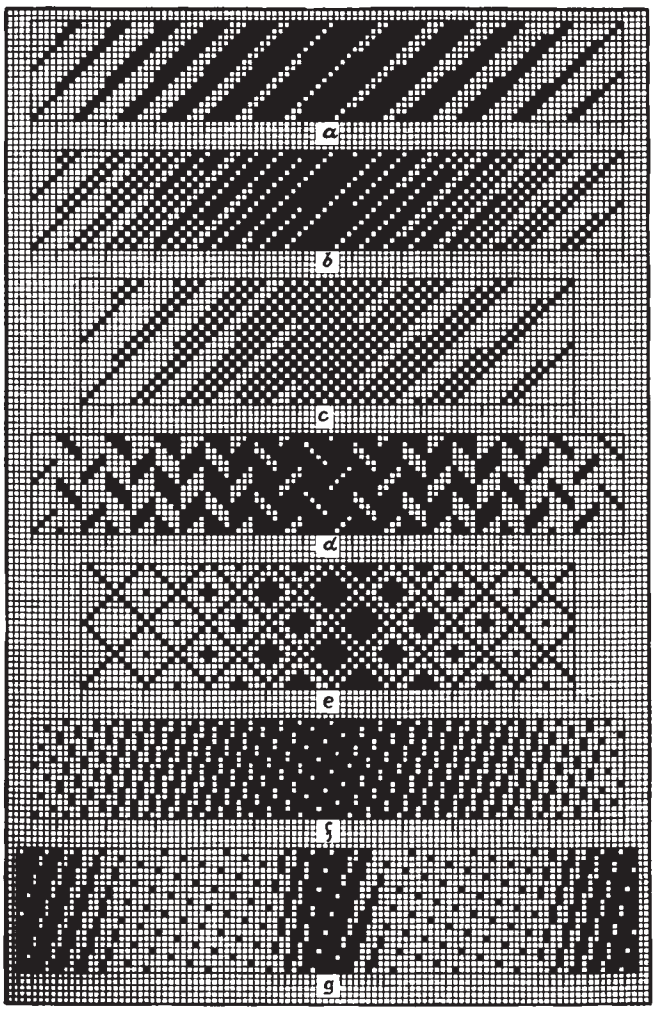

*Fig. 41**

presents more possible changes from its filling to its warp effect (7 to 4 in the two examples quoted).

Either all possible changes of the foundation weave may be called upon, and what is most often the case, again one or more of these possible changes may be omitted. Using every possible change at our disposal, will result in the most gradual shading possible

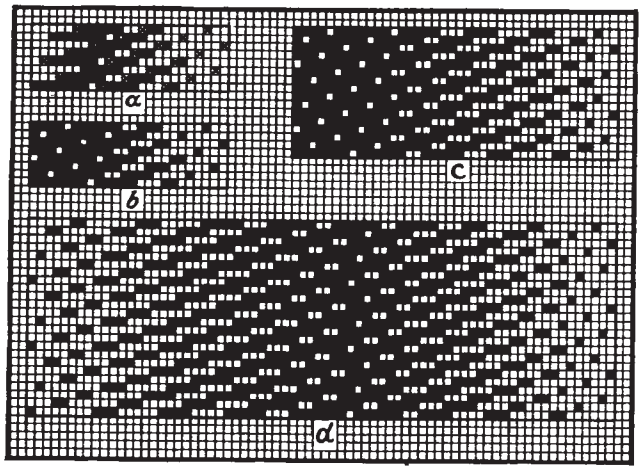

*Fig. 41***

produced, whereas omitting a change will make the shading correspondingly more abrupt, a feature which however in some instances may be desired.

Having divided the repeat of the weave plan with the foundation weave (filling effect) inserted into the required number of divisions, leave your first division as it is. In the next division add, either warp or filling ways, one riser to each original riser of the foundation weave. Add in the same way two risers to the original foundation riser in the third division, and proceed similarly, adding one additional riser in each division until finally obtaining the warp effect, and when then, provided a shading back is desired, the reverse procedure (subtract one riser) is observed with every successive division, until returning to the original filling effect of the foundation weave.

Weave Fig. 41 explains subject, using the 5-harness satin for the foundation weave. Above this weave plan we find the latter divided into six divisions of 5 warp-threads each, hence repeat of shaded weave to be $(6 \times 5 =)$ 30 warp-threads.

1 shows foundation weave (filling effect).
2 " add one riser to foundation.
3 " add two risers to foundation.
4 " add three risers to foundation (warp effect).
5 " add only two risers to foundation.
6 " add only one riser to foundation.

In the same way as we thus treated the 5-harness satin, any other satin or twill can be dealt with.

Collections of shaded weaves Fig. 41* and Fig. 41** are given to illustrate subject, and when in connection with the first collection of weaves,

a shows twill shading in stripes, using the 8-harness twill for basis, with 8 warp-threads for every possible change from filling to warp effect and vice versa.

b shows another method of shading of the 8-harness twill.

c shows the shading of the 10-harness twill to a plain weave, and vice versa.

d shows twill shading in stripes, using the 8-harness broken twill for basis, in connection with seven changes, each extending for 8 warp-threads.

e shows twill shading in stripes, using the 10-harness pointed twill for the basis of the new weave, with 10 warp-threads for each effect.

f and *g* show different values of satin shading; *f* has the 8 and *g* the 10-harness satin for its basis.

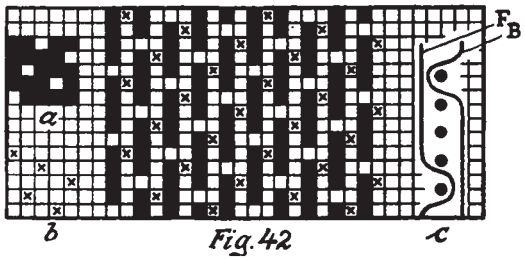

Fig. 42

Satin weaves can also be shaded by adding the additional spot or spots as until now placed on top to the foundation satin riser, either to the right or left of the latter. Collection of weaves Fig. 41** explain subject, all having the 8-harness satin for their basis. *a* shows the planning for *b*, the foundation satin being shown in *cross* type; *c* shows an enlargement of effect *b*, and *d* shading in both directions.

Two Systems Warp.

In this instance a face warp and a back warp is used in connection with one system of filling in the construction of the fabric, the latter interlacing with both systems of warp-threads. These weaves find use in connection with double faced ribbons, coat and shoe straps, etc. Any warp effect satin, twill, etc., may be used for face, its mate or any other filling effect weave being used for interlacing the back warp.

The interlacing of the two systems of warp with the filling must be so arranged that the same is not noticeable on either side of the fabric. For this reason place the sinkers of the face warp so that every one

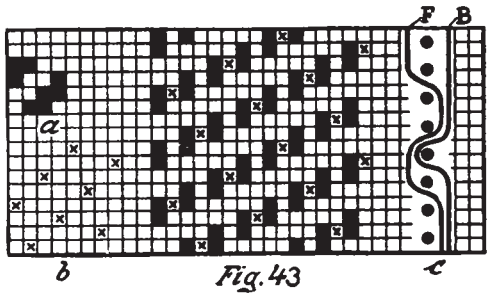

Fig. 43

comes between two sinkers of the back warp, and vice versa place your risers of the back warp so every one comes between two risers of the face warp.

Weaves Figs. 42, 43 and 44 are given to illustrate subject. In all three examples the face warp is shown by *black* type, and the back warp by *cross* type.

Fig. 42 shows a weave where each side of the fabric will show 5-harness satin, warp face. Diagram *a* shows the weave used for interlacing the face warp-threads and *b* the weave for interlacing the back warp-threads. Diagram *c* shows a section of the fabric, the latter being cut warp ways: *F* indicates the face warp, *B* indicates the back warp, and *circles* the sections of the filling.

Fig. 43 shows a weave in which the face warp interlaces with the 4-harness even sided twill, and the back warp with the 8-harness satin.

The arrangement of Face warp: Back warp, in weaves Figs. 42 and 43 is 1:1, or balanced; this arrangement however, is not always used.

Fig. 44 gives us an example where said proportion is 2 ends Face warp to alternate with 1 end Back warp. The weave used for the face is the 5-harness satin, warp effect, and that for the back the 5-harness filling effect twill.

In both weaves, Figs. 43 and 44, letters of reference as well as kind of type used, correspond to those used and explained in connection with weave Fig. 42.

Face, Interior and Back Warp.

In fabrics constructed with these 3 systems of warp quoted (and one system of filling) the face and back warps only show, the interior warp (as its name indicates) resting in the interior, *i. e.*, the centre of the fabric; in some instances the latter may be also used for producing figures, either on the face or the back of the fabric. One set of filling only is used. When planning these weaves, remember that the interlacing of face warp-threads (sinkers) is done between two interior warp-threads which tie down (sinkers) on the same pick; again the rising of the back warp-threads must be done between two interior warp-threads raised

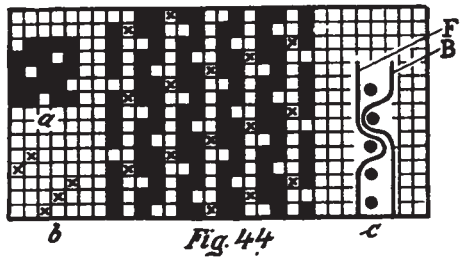

Fig. 44

on the same pick. The weaves most suitable for the interlacing of the interior warp-threads are even sided weaves.

Previously to laying out a weave of this kind, put your interior weave on a piece of point paper and ascertain whether the sinkers of the face warp and the risers of the back warp suit, *i. e.*, will combine, after rule previously referred to, with said interior warp. If such is the case, care must be exercised when planning the final 3-warp weave, that the positioning (relation) of the face and back warp-threads to that of the interior warp-threads remains the same as in the plan previously experimented with.

Fig. 45 shows such a weave with 8-harness satin for face and back warp, and 4-harness even sided twill for the interior warp. In the experimental plan shown at the left of weave, *cross* on the line means

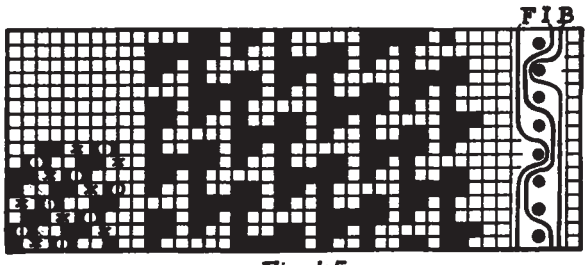

Fig. 45

sinker for face warp, and *circle* on the line means riser for back warp.

At the right hand side of the weave the interlacing of one end each of face, interior and back warp is given, in connection with eight picks. *F* in said fabric-section indicates the face warp, *I* the interior, and *B* the back warp threads.

(*To be continued*)