MANUFACTURE OF NARROW WARES.

Ribbons, Trimmings, Edgings, etc.

(*Continued from page 63.*)

Weaves with Stuffer and Figuring Threads.

In these fabrics the stuffer warp-threads rest, *i. e.*, float between face and back structure not visible on either side of the fabric, being for this reason raised on every back pick and lowered on every face pick.

If said stuffer warp-threads at the same time are also used for the purpose of figuring on the face or the face and back of the fabric, they then must be raised on the respective face picks when required to be seen on the face of the fabric, and lowered on the respective back picks when required to show on the back of the fabric structure.

Fig. 74 shows us a specimen of a weave of this class, showing two sets of 2 stuffer warp-threads each, in one repeat of the weave, floating between face and

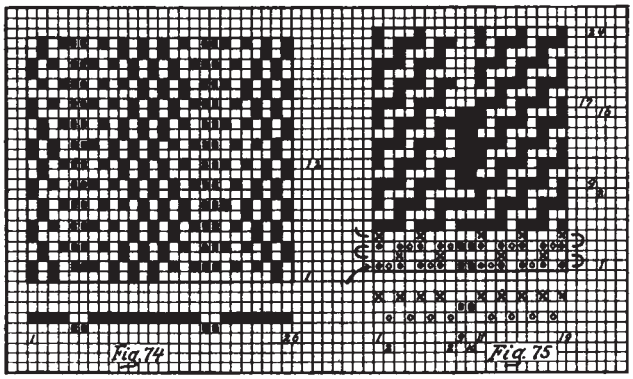

Fig. 74.

Fig. 75.

back picks throughout the entire repeat of said weave. These stuffer warp-threads refer to threads 5, 6 and 18 and 19 of our weave, being shown in *heavy dot* type so as to contrast with the balance of the weave as is shown in *full* type, the complete weave repeating on 26 warp-threads and 12 picks; two repeats filling ways of the weave are given. The arrangement of the warp-threads, as shown by gamut below the weave is thus:

4 ends regular
2 " stuffer
11 " regular
2 " stuffer
7 " regular

26 warp-threads in repeat of pattern.

Weave Fig. 75 shows us in an otherwise double plain fabric structure in which 2 extra warp-threads are used part of the time as a stuffer warp, or floating, *i .e.*, figuring on face or on the back of the fabric structure.

Examining our weave in detail we find

Warp-threads 1 to 8 = double plain.
" " 9 and 10 the 2 extra warp-threads previously referred to.
" " 11 to 19 = double plain.

With reference to the double plain portions, its construction is shown in the first 4 picks in different type to illustrate the rules of constructing double cloth, viz.:

Dot type = Raise every face warp-thread on every back pick.

Cross type = Insert face weave (the plain weave in this instance) on every face pick, considering the face warp-threads only for this purpose.

Circle type = Insert weave for back structure (again the plain weave in this instance) on every back pick, considering the back warp-threads for this purpose only, in turn obtaining the regular double plain, minus stitching, *i. e.*, two separate fabric structures, united on their sides, or selvages, by means of the filling passing from one structure into the other, as clearly shown in the weave and where the filling enters (see arrow at left of pick 1) in the back structure. Leaving the latter (see starting of connecting bow line at the right hand of the first pick) it then enters in the formation of the second shed, *i. e.*, pick 2 and which is a face pick. This connects the two fabric structures. The shuttle upon leaving pick 2 (see bow line at the left hand side of the weave) then enters pick 3, or a back pick, in turn connecting the two fabric structures on this side. After this the affair is similarly repeated, over and over again, throughout the entire repeat of the weave.

With reference to warp-threads 9 and 10 and which are the characteristic features of this system of weave formation, the same are shown at:

Picks 1 to 8 to act as a stuffer warp, *i. e.*, rest between face and back filling. In the first four picks they are shown by *heavy dot* type, after that the same as the rest of the weave by uniformly *full* type.

Picks 9 to 16 show these two warp-threads to float (*i. e.*, figure) for eight picks on the face of the fabric structure.

Picks 17 to 24 show the reverse effect, produced by these two warp-threads, *i. e.*, they are made then to float for eight picks on the back of the fabric structure.

This clearly explains the three possible positions for these figuring warp-threads:

(1) stuffer = not visible on face or back of fabric structure.
(2) figuring, by showing on the face of the fabric structure.
(3) figuring, by not showing on the face of the fabric structure, *i. e.*, floating on the back.

Repeat of weave Fig. 75 is 19 warp-threads and 24 picks.

Below the weave the gamut (scale) for the disposition of the warp-threads is given thus:

1 end face, *cross* type } × 4
1 " back, *circle* type }
2 ends figure warp, *heavy dot* type
1 end face, *cross* type } × 4
1 " back, *circle* type }
1 end face *cross* type, to produce a uniform appearance of two edges to the fabric.

(*To be continued.*)

Silkworm Culture in California.

Through the activities of a woman's silk-culture society, 5,000,000 silkworms will be raised during the coming season at the society's station in Napa County, Cal. According to the California press, the association has 750 mulberry trees growing on its lands and more are being planted.

Ramie Cloth from China.

Consul General Thomas Sammon has sent from Shanghai 13 samples of ramie or China grass cloth, which will be loaned to American textile interests on application to the Bureau of Foreign and Domestic Commerce, Washington, D. C.