are treated with soap lather for removing a portion of the gum without injuring the original structure of the fibres. The latter are then combed and spun into yarn, which is treated with soap lather to remove the final portion of the gum, and the fibres are then weighted and dyed.

This novel process of treating the silk with soap lather successively in the form of wastes and yarns, it is stated, produces an absolutely uniform ungumming and preserves the original structure of the fibres; thereby providing a yarn which will be regularly and uniformly penetrated by the weighting metallic salts.

In this production of pile yarn, it will be found advisable to employ weighting substances equal to from 40% to 60% of the silk.

The claims of advantages for the new process are (*a*), it renders possible the advantageous manufacture of weighted colored velvets, and (*b*) at the same time permits the use of lower quality of silk wastes in the production of pile yarn. A. Suter, the well known Textile Engineer, Fifth Ave. Bldg., New York, is the representative of Messrs. Schmid Freres.

RIBBONS, TRIMMINGS, EDGINGS, ETC.

By Otto Both.

Weaves for Double Cloth Fabrics.

STITCHING BOTH STRUCTURES.

(*Continued from July issue.*)

(2) STITCHING BACK WARP INTO FACE FILLING.

Rule: Raise the back warp-thread on the face pick when the joining face warp-threads (the face warp-thread on either side, next to the back warp-thread thus raised) are in the upper shed, in order that said face ends will cover the stitch. At the same time arrange the back weave so that a riser precedes and follows the stitch, that is, provided the back weave has two successively following risers. If there are only individual risers in the back weave, have the same either precede or follow the stitch. This will result in an easier handling of the warp by the loom and at the same time, the fabric will present a smoother face.

The accompanying two examples will explain the subject:

Fig. 79. In the same *a* shows the weave for the face and *b* the weave for the back structure. *c* is the double cloth weave and *d* a corresponding section of the fabric structure, cut between the first and second warp thread of weave *c*.

In the latter diagram

Black type indicates the weave for the face structure,

Dot type: Raise every face warp thread on every backing pick.

Cross type shows the weave for the back structure.

Circle type shows the stitching of the back warp onto the face filling (Risers).

Arrangement of Face and Back, in Warp and Filling, is 1 : 1.

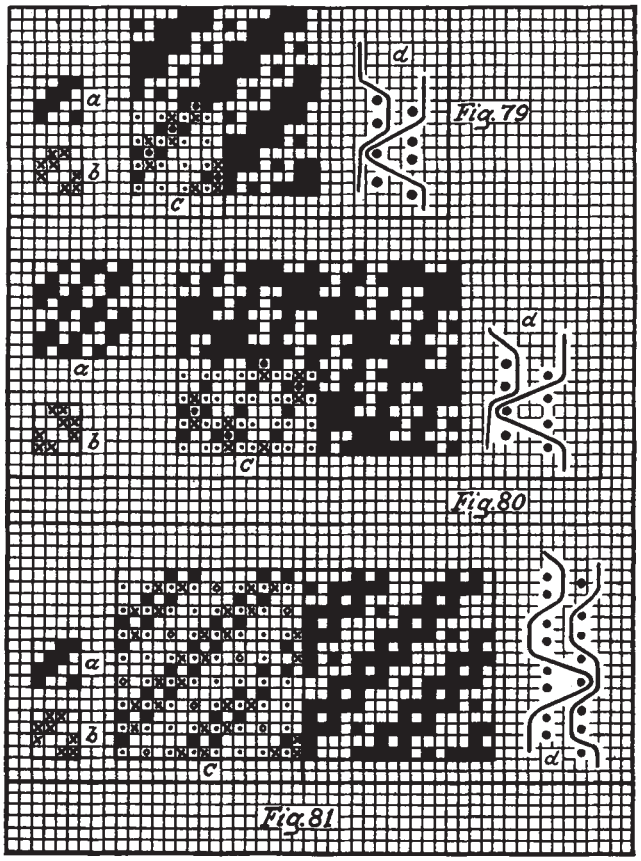
Weave for Face and Back is the 4-harness even sided twill.

Stitch: The 1 *up* 3 *down*, 4-harness twill.

Repeat of Weave: 8 warp threads and 8 picks. One repeat is shown in the different kinds of crochet type quoted before, the other three repeats are shown in one kind of type.

Fig. 80 shows us another example of this class of weaves. Letters of references and style of crochet type used correspond to those as used in the preceding example, hence will explain the subject without any further comment on it, the only difference being, that in the present instance, the arrangement of face to back warp is 2 : 1, that of the face and back filling being again 1 : 1.

Repeat of weave *c* is 12 warp threads and 8 picks.



(3) STITCHING THE FACE WARP INTO THE BACK FILLING.

Rule: Lower the face warp thread on the back pick when the joining back warp threads are also in the lower shed, at the same time, arrange said stitch between the two sinkers of the joining two face picks, *i. e.*, that three sinkers show in rotation lengthways in the double cloth weave.

Fig. 81 explains the subject.

Letters of references and style of crochet type used, correspond again to those used in the two preceding examples, the only difference being that *circle* type (the stitch) in this instance stands for *sinkers*, having used for this reason an outlined circle.

The weave used for the stitching is the 8-harness satin, filling effect.

Arrangement of Face to Back in warp and filling is 1 : 1.

Repeat of weave *c* is 16 warp threads and 16 picks. Two repeats of the weave are given, one in a selection of crochet type to show the construction of said double cloth weave, the other repeat being given in one kind of type.

(*To be continued.*)