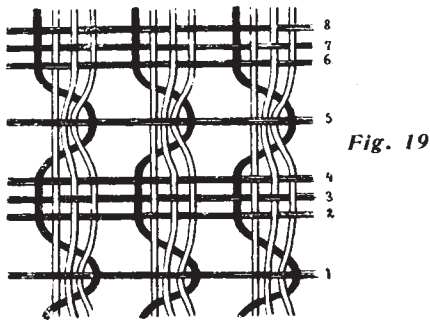
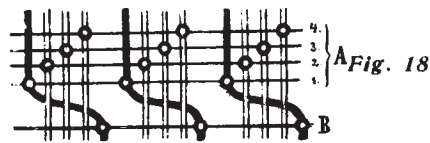


ing whip-threads in the doups, is shown arranged for three repeats (correspondingly to fabric sketch) in diagram Fig. 18. The same reason which compelled us, in plain gauze, to draw each pair of threads (1 standard, 1 whip) in one dent, compels us in the



present example to thread each set of 1 whip-thread and 3 standard-threads in one dent, leaving as many dents empty between the threading of each set, as required by the size of perforations wanted in the fabric.

Harness chain for weaving fabric is thus:

- 1st. pick, Skeleton and Standard.
- 2nd. pick, Skeleton and Ground-harnesses 1 and 3.
- 3rd. pick, Ground-harnesses 2 and 4.
- 4th. pick, Same as second pick.

(To be continued.)

RIBBONS, TRIMMINGS, EDGINGS, ETC.

(Continued from October issue.)

Color Effects in Ribbons.

WARP EFFECTS. The plainest styles are such as used for the trimming of men's hats, being one shuttle cotton ribbons, woven on taffeta. The fancy effect is produced by dressing the warp in sections of differently colored yarns. Again in connection with figured ribbons we may use a figure warp composed of different colors throughout the repeat, again either system of the figure may be dressed a different color.

Printing the warp is also much used. In this instance, the dressed warps are printed with various patterns, *i. e.*, color effects. Using in connection with such warps a filling not too heavy in count, and interlaced with taffeta, brings out the printed pattern in a peculiar, less pronounced, manner. To increase the effect, weaves technically known as "figuring with the warp upon taffeta ground" are used for the interlacing of these printed warps. Fig. 181 shows us a collection of nine weaves of this character. In the same, white, or *empty* squares, stand for warp up, *i. e.*, shows the floating figure effect of the printed warp, previously referred to. Black, or *full* type, indicates the filling up.

FILLING EFFECTS. These are produced by using more than one shuttle, *i. e.*, using different colors in

the filling. Again we may use a printed filling, *i. e.*, have the skein or hank printed in stripes of different colors. Formerly from 2 to 4 colors were printed upon it, whereas now more divisions are made, *i. e.*, more colors printed upon it. Using a fancy color arrangement for warp and filling gives us an unlimited field for a diversity of color effects.

Woven ribbons, both in plain as well as fancy weave structures, are also printed in the finishing process; they are then either printed in solid colors or fancy effects in two or more colors; again watered effects may be desired. Trade marks or names of firms are also printed on ribbons, in imitation of the woven article. Cigar ribbons are always printed.

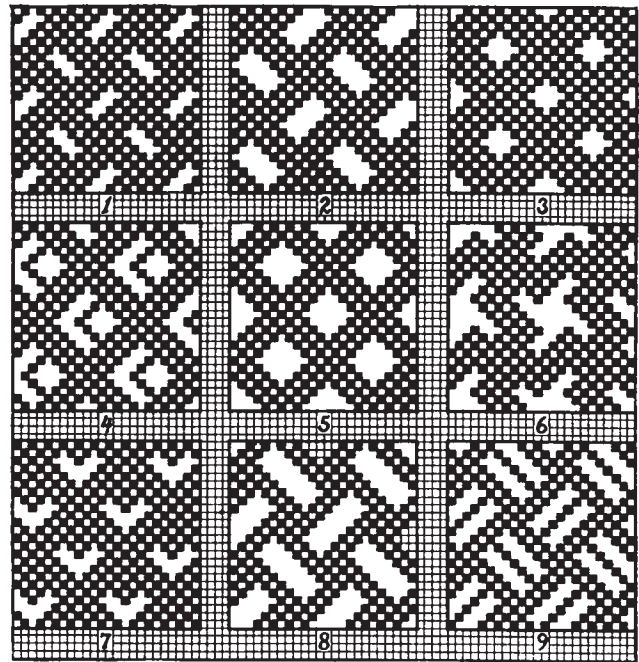


Fig. 181

In imitation of woven printed ribbons, for sake of cheapness, broad woven cloth, after printing, is cut up into the widths of ribbons. The absence of solid selvages will readily show them up, the outside warp threads will have no hold in the fabric, they will easily unravel.

(To be continued.)

GLAUBER'S SALT VICE VERSA COMMON SALT.

In dyeing with the direct cotton dyes, sulphate and chloride of sodium have hitherto been regarded as equally satisfactory assistants; the sulphate is almost always preferred in dyeing half-wool by the one-bath process. A German authority argues that this is a mistake. Glauber's salt he claims is dissociated in the boiling bath, with the result that the latter contains quantities of caustic soda which cannot fail to have an injurious action on the wool. For this reason he claims that common salt which is not split up at a boiling temperature is greatly to be preferred. He further states that even with direct cotton colors on cotton alone (although the liberated alkali does not act on the fibre) Glauber's salt has a destructive action on many of these direct dyestuffs, for which reason he claims common salt is to be preferred.