

RIBBONS, TRIMMINGS, EDGINGS, ETC.

(Continued from page 6.)

Other Effects in Ribbons.

Raised effects, open work and other special effects are more variedly used in the manufacture of ribbons as compared to any other branch of the textile industry. The cause of it is that with ribbons we deal with small surfaces, giving little opportunity for the designer to show his skill in connection with elaborate, well-distributed, all-over designs, as is of so much importance when designing for floor coverings, drapery, upholstery goods, dress goods, etc. Having no opportunity to show his skill in that line, the ribbon or narrow ware designer, has to look for other quar-

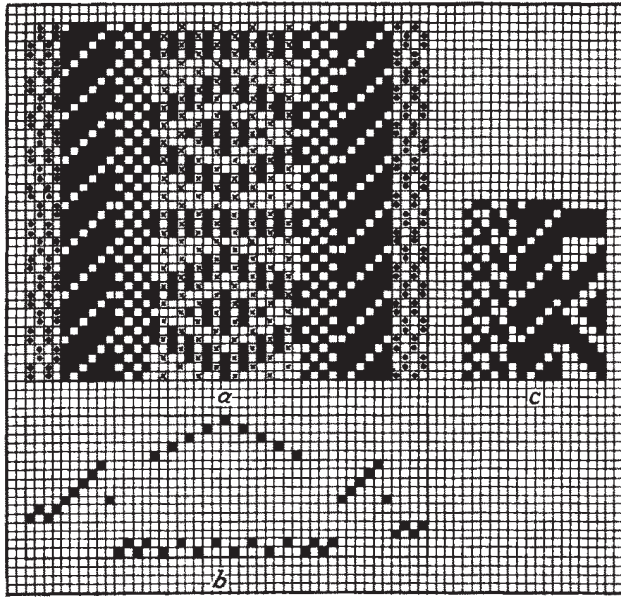


Fig. 182

ters for new ideas. Using all possible kinds of plain and fancy yarns, specialties in manufactured twists, metal yarns, combinations of diversity of weave effects, etc., must give him this opportunity for new styles, and which are constantly required by the trade.

Figured Ribbons, Trimmings, Fringes.

Fig. 182 shows us at *a* a weave for a figured ribbon, one shuttle work, showing a rib edge, twill stripes and a figure effect in the center, produced by a special warp upon a taffeta ground.

Repeat of weave 45 warp threads and 20 picks.

In examining this rib edge, *i. e.*, selvage of the ribbon, you will notice that the starting of up and down of the $\frac{2}{2}$ 4 pick rib weave is different on both sides (one pick difference). This must be done every time such a rib edge is used, being careful to enter the filling at the same time from the proper side of the ribbon (from the left on first pick in our example); a mistake, *i. e.*, the wrong positioning of the shuttle, or wrong painting of the rib weave, would be the cause of the filling pulling out of the rib edge, also out of a portion of the twill effects in our example.

Below the weave (see *b*) is given the drawing-in draft, calling for 16-harness fancy draw. In the same we have placed the warp threads interlacing the most

(the plain weave) nearest to the reed (*i. e.*, on harnesses 1 and 2); the rib selvage, the next tightly interlacing weave is put next to the plain (*i. e.*, on harnesses 3, 4-5, 6); the $\frac{4}{1}$ 5-harness twill is drawn next on harnesses 7, 8, 9, 10 and 11, followed with drawing the extra figure warp threads, and which interlace very loosely, on harness 12 to 16, inclusive. This method of drafting the warp threads is done according to

Rule: For forming the shed the harnesses must be raised in proportion, always higher the further in back from the reed, the one nearest the reed being the one raised the least. For this reason place the threads which interlace the most, hence have to stand the most strain during shedding, on the harnesses raised the least high, *i. e.*, nearest to the reed.

c is the harness chain, calling for 16-harness and 20 picks, obtained from weave *a* and its drawing-in draft *b* by

Rule: Indicate the working of each harness, throughout one complete repeat of the weave, only the first time when called by the drawing-in draft.

(To be continued.)

RECENT FOREIGN IMPROVEMENTS IN TEXTILE MACHINERY AND APPLIANCES.

Self-Threading Shuttle.

Figs. 1 and 2 are given to illustrate its construction, and of which Fig. 2 is a section of Fig. 1 taken on line *x-x*. In the same blocks 9 and 11 are provided to take the rib, of the thread. These blocks are made of porcelain, glass, or similar material, and are fastened in place by cement. Pins, such as 10, may be used to secure the blocks more firmly in position. The threading-device 3 has a part 5, which guides the thread round the curved end 9³ of the block 9.

Stop Motion for Doubling and Twisting Frames.

Fig. 3 is given to illustrate construction and operation of the new device; Fig. 4 is a detail view of a modification of the thread-eye guide, of stop motion lever *c, c'*, in Fig. 3.

Examining the latter illustration, we find that a loose sleeve surrounds and rotates with the bottom draft roller of a doubling and twisting frame, and is provided with end flanges *d'* which have four notches *d²* (or projections) with which the pivoted arm *c'* engages, when released by the breakage or slackening of thread *a*, and thus stops the rotation of the sleeve and in turn the delivery of the yarn *a*. The latter passes through an eye *e²* in the arm *c*, or under a glass rod *g* (Fig. 4) secured thereto, which is provided with thread-cutters *h* to prevent "fourfolds." Two sets of arms *c, c'* may be used, one set for each flange of the sleeve, and a latch may be provided to hold the arm *c'* securely when it has engaged the flange *d'* of the loose sleeve.

In connection with wet doubling-frames, the sleeve is made of brass, and is perforated to facilitate lubrication.

If desired, the sleeve may be made to surround the top roller, and the arm *c, c'*, formed in parts, adjustably secured to each other.