NOVELTY IN MEN'S WEAR FROM ABROAD.
Worsted Trousering.

Warp: 4374 ends.

Dress: 9 sections, each containing 27 patterns @ 18 ends, or 486 ends total.

Weave: Repeat 18 x 4.

Weave: Spotting with light gray warp in 4-harness twill structure. Repeat 18 x 4
Full type = Black warp.
Shaded type = Medium gray warp.
Cross type = Light and medium gray twist.
Dot type = Light gray (spotting) warp.

Arrangement of Warp:
2 ends 2/46's worsted, black.
1 end 2/48's worsted, light gray.
2 ends 2/48's worsted, medium gray.
1 end 2/48's worsted, light gray.
2 ends 2/46's worsted, black.
10 ends 2/48's worsted, light and medium gray twist.
18 ends in repeat of pattern.

Selvage: 20 ends of 2/28's worsted each side, using 5 dents for same, equal ¾ inch each side.

Reed: 16½ with 4 ends per dent = 65½" width of fabric, plus ¾" for selvages = 66" width in reed.

Filling: 58 picks, 2/42's worsted, black.

Finish: Worsted finish, scour well, clear face on shear, 56 inches finished width.

CRÈPE WEAVES.
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Distributing Effect-Figures.

By this system of designing crèpe weaves, suitable small effect-figures are regularly distributed all over the repeat of the weave. The accompanying two plates of such weaves will readily explain the procedure how they are constructed as well as how to construct any number of other crèpe weaves by it.

In connection with weaves Figs. 1, 2 and 3, the respective foundation effect-figures are distributed after the 4-harness broken twill motive.

The first two effect-figures in each weave are shown by cross type, the balance of the repeat of the weave, as well as three more repeats (given so as to show up the general effect of the design) are shown by full type.

In connection with weave Fig. 1, the distribution of the effect-figure has not filled up the repeat of the weave complete, for which reason we added a 2-effect of a basket weave. Repeat of weave: 8 warp-threads and 8 picks.

Fig. 2 shows two foundation effect-figures, twilling in the same direction, to entwine with two corresponding effects, twilling in the opposite direction. Repeat of weave: 8 warp-threads and 8 picks.

Fig. 3 shows two foundation effect-figures running into each other, one being shown by cross type, the other by dot type. Both effects combined, entwine with two similar foundation effect-figures which twill in the opposite direction to that of the first set. Repeat of weave: 8 warp-threads and 8 picks.
Fig. 4 was obtained by arranging two effect-figures, as shown by cross and dot type, in twill shape for the crêpe weave, which repeats on 8 warp-threads and 8 picks.

Fig. 5 has the same effect-figure for its foundation as was used for weave fig. 1, the difference being that in the present instance we arranged (in place of two) four of these effect-figures, all twilling in one direction, to entwine with a set of similar four effect-figures, but twilling in the opposite direction. Repeat of weave: 10 warp-threads and 10 picks.

Fig. 6 has for its foundation effect-figure the same as was used in connection with weave Fig. 2, using in this instance eight (in place of two) of these effect-figures, twilling in one direction, to entwine with the same number of effect-figures, twilling in the opposite direction. This combination of effect-figures shows in four instances in the repeat of the weave a float of over four warp-threads. Since a float over three warp-threads is the largest float otherwise used in the weave, tie down each of the four floats in the repeat of the weave by one riser, using for this purpose the proper warp-thread (see dot type). This will omit the float of four without showing the procedure in the finished fabric. Repeat of weave: 16 warp-threads and 16 picks.

Weaves Figs. 7 and 8 have their respective foundation effect-figures (see cross type) distributed over the repeat of the weave (18 warp-threads and 9 picks) after the 9-harness satin motive setting, considering for the latter two warp-threads to equal one pick.

Weave Fig. 9 shows two foundation effect-figures used (one shown by cross type, the other by dot type) both being distributed by the 9-harness satin motive setting, resulting in a crêpe weave repeating on 18 warp-threads and 18 picks.

Weave Fig. 10 shows the foundation effect-figure (see cross type) distributed after the 10-harness satin motive setting. Repeat of weave: 20 warp-threads and 20 picks.

Weaves Figs. 11 and 12 have their respective foundation effect-figures (see cross type) distributed over the repeat of the weave after the 5-harness satin motive setting. Repeat of both weaves: 10 warp-threads and 10 picks.

**COMPARISON OF FABRIC STRUCTURE.**

(Continued from page 90.)

Comparative Setting of Weaves.

It is a very good method in reasoning out the setting of weaves to which the intersection theory cannot be applied to find the diameters of the yarns that are considered suitable, and also the threads per inch based on the intersection theory. A comparison of the figures will then usually enable the setting to be decided upon which is suitable for the method of interlacing, and the effect that is desired in the cloth. A twill weave that is re-arranged in satin order usually requires to be set firmer than the original twill, but how much firmer varies according to the degree in which the intersections in the re-arranged weave support each other. A comparison of the designs 1, 2, 3, 4 and 5 will make this clear.

(11) Assuming that the designs 1, 2, 3, 4 and 5 are required to be woven in 20's cotton yarns (116 diameters):

For design 1 the number of ends per inch by the intersection theory =

\[ 118 \text{ diameters} \times 11 \text{ threads} \]
\[ 11 \text{ threads} + 6 \text{ intersections} \]

\[ = 77. \]

The number of ends and picks per inch may, if desired, be reduced from 77 to the neighborhood of 70.

The designs 2, 3, 4 and 5 are looser in structure than the design 1; 5 being firmer than the others, while 2 is firmer than 3 and 4. It is necessary, however, to consider the effects that the weaves will produce in the cloths. The design 2 produces a flat twill and the filling should therefore predominate over the warp. The warp may be set with 77 ends per inch, as found in the eleventh calculation, while the picks may be increased to about half way between 77 and 118 diameters per inch, viz., about 98 picks.

The designs 3 and 4 are very loose and may be set almost up to the diameters per inch, but half way between 77 and the 118 diameters, viz., 98 ends and 98 picks, may be taken as reasonable setting.