

1 and 7 — no good — see rule *a*

2 and 6 — no good — see rule *c*

3 and 5 can be used

4 and 4 — no good — see rule *b*

This will give us numerals 3 and 5, either one of which can be used as *counter* or *grade* numeral for obtaining the 8-harness satin.

It must be mentioned that when one of the numbers of the pair thus obtained is used as *counter*, the other is not always the *grade* number in that example.

Fig. 12 is the 5-harness (filling effect) satin, two repeats each way are given.

No regular satin can be designed for 6-harness, according to conditions *a*, *b*, *c* and *d* previously quoted. To obtain an irregular 6-harness satin, divide the points of interlacing of the weave so that the filling taken successively calls in turn for the 1st., 3rd., 5th., 2nd., 6th., and 4th., warp-thread.

Fig. 13 is the 8-harness (filling effect) satin, one repeat only being given.

Fig. 14 is the 7-harness (warp effect) satin, one repeat only being given.

DOUBLE SATINS.

are obtained from our regular satins by adding one (or more) additional point of interlacing to the original satin spot, placing the same either on top or on bottom or in an oblique direction to the original spot.

Fig. 15 shows two repeats each way of the 5-harness double satin. In the left hand lower corner, the foundation is shown by *cross* type.

If with a satin chain, a few warp-threads in the fabric have to weave twill, then draw said warp-threads in the harness with a satin draw and the result will be twill in the fabric.

In the same way, if with a plain chain a few warp-threads have to weave satin, then draw the latter threads with a satin draft in the harness.

Fig. 16 explains the subject. *Full* type shows harness chain, *dot* type shows draft; the result in both instances is the same in the fabric—the 5-harness satin; or in other words:

The 5-harness satin as chain, with a straight draw (see diagram *a*) = 5-harness satin in fabric.

The 5-harness satin as chain, with a satin draw = 5-harness twill in fabric.

The 5-harness twill as chain, with a straight draw = 5-harness twill in fabric, and

The 5-harness twill as chain, with a satin draw (see diagram *b*) = 5-harness satin in the fabric. The same affair also refers to any other regular satin than five.

Rib Weaves.

The same have for their foundation the taffeta weave, their characteristic rib lines running either warp or filling ways; hence they are known either as warp or filling ribs.

In connection with warp ribs, the warp forms the face and back of the fabric, the filling resting imbedded between the warp-threads; the rib-lines run in this instance in the fabric in the direction of the filling.

With filling ribs, the affair is reversed, the filling then forms face and back of the fabric and the warp rests imbedded between the filling; the rib lines run in this case warp ways in the fabric.

Fig. 17 is the $\frac{2}{2}$, 2 by 4 warp effect, rib weave.

Fig. 18 is the $\frac{4}{4}$, 2 by 8 warp effect, rib weave.

Fig. 19 is the $\frac{3}{1}$, 2 by 4 warp effect, rib weave.

Fig. 20 is the $\frac{3}{3}$, 6 by 2 filling effect, rib weave.

Fig. 21 is the $\frac{3}{3}$, warp effect rib weave, transposed with four warp-threads in a set, after the 3-harness twill for motive (see *cross* type). Repeat of weave 12 by 6.

Fig. 22 is the $\frac{4}{4}$, warp effect rib weave, transposed with four warp-threads in a set, two picks higher (see *cross* type), repeat 8 by 8.

Fig. 23 is the $\frac{5}{5}$, warp effect rib weave, transposed with two warp-threads in a set after the 5-harness satin (see *cross* type) for its motive. Repeat of weave 10 by 10.

Fig. 24 shows how to strengthen a too loosely interlacing rib weave; the weave used being $\frac{4}{4}$, 2 by 8 rib weave warp effect, the strengthening of the cloth being done with the $\frac{1}{3}$ 4-harness uneven sided twill (see *cross* type). This procedure, however, results in what we technically term a one side fabric.

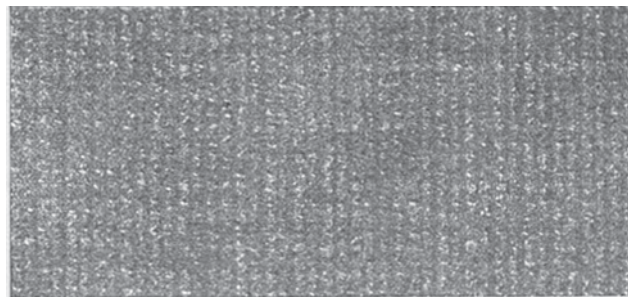
NOVELTY IN MEN'S WEAR FROM ABROAD.

Woolen Melton Suiting.

Warp: 3680 ends.

Dress: 10 sections, each containing 46 patterns @ 8 ends, or 368 ends total.

Weave: $\frac{2}{2}$ 4-harness twill.



ACTUAL REPRODUCTION OF FABRIC
from which details of fabric structure given, are taken.

Arrangement of Warp:

2 ends $4\frac{1}{2}$ run woolen yarn, black.

2 ends 48's worst. lt. and 6 run wool med. gray, tw.

1 end $4\frac{1}{2}$ run woolen yarn, black.

3 end 48's worst. lt. and 6 run wool med. gray, tw.

8 ends, repeat of pattern.

Reed: 13 with 4 ends per dent = $70\frac{3}{4}$ " width of fabric, exclusive selvage, in reed.

Filling: 46 picks per inch, arranged thus:

2 picks $4\frac{1}{2}$ run woolen yarn, black.

2 picks 48's worst. lt. and 6 run wool med. gray, tw.

3 picks $4\frac{1}{2}$ run woolen yarn, black.

1 pick 48's worst. lt. and 6 run wool med. gray, tw.

8 picks, repeat of pattern.

Insert the single light and gray twist pick when all the black warp is raised, *i. e.* cover its own color in the warp with it.

Finish: Melton finish, scour well, full slightly, clip on shear, press, decatize and steam; 56 " finished width.