

WELTS, PIQUÉS, WORSTED COATINGS, MATLASSES, QUILTINGS, BEDSPREADS.

(Continued from August issue.)

(c) Producing Raised Figures by Means of a Slack Take-up of the Figure Warp compared to that of the Ground Warp.

Two systems of warp and two systems of filling are used in the construction of these fabrics, *viz.*:

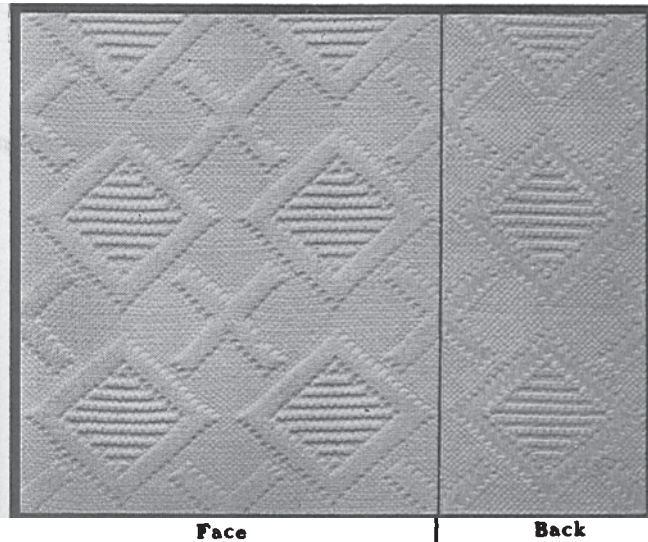


Fig. 62

(a) *Figuring Warp* and which by means of a loose let-off (about 25 per cent take-up) produces the raised figure effect on the face of the fabric.

(b) *Ground Warp*, which as its name indicates, produces the ground effect on the face of the fabric. This warp calls for a tight let-off of its beam at weaving; about 3 per cent being the average loss of the length dressed by the take-up at weaving. It is of a somewhat heavier count of yarn as compared to the figuring warp, the proportion being about 3:2.

(c) *Face Filling*.

(d) *Stuffer Filling* which is about four times as heavy in its counts as compared to the face filling.

Both systems of warp, in connection with the face filling, form the face of the fabric, the stuffer picks resting imbedded between the two systems of warp-threads, imparting to the loosely interlacing figure warp-threads the desired raised, *i. e.*, embossed effect.

Fig. 62 shows a photographic reproduction, actual size, of a fabric constructed by the combination referred to. Face and Back of fabric are given in the illustration.

Fig. 63 shows three repeats each way of the point paper design; repeat of each 32 by 32 squares and which equals 32×4 (2 ends face and 2 ends back warp for each square in the design) 128 warp-threads for the repeat of the pattern.

In the same way 2 face picks and 2 stuffer picks stand for each square in the motive, hence 128 picks repeat of pattern.

Fig. 64 shows the analysis of a portion of the point paper design Fig. 63; 12 squares each way taken from the lower left hand corner of the design are shown, *i. e.*, the interlacing of $(12 \times 4 =)$ 48 warp-threads and 48 picks are given in analysis Fig. 64.

In the latter, the arrangement of the warp is shown in the special diagram on top of the analysis;

Full type standing for the *Figuring Warp*,

Dot type standing for the *Ground Warp*.

In the analysis proper, besides the above two characters of type quoted the following characters are used:

White Dot (on black ground) type: Figuring warp making plain cloth with face filling.

Cross type: Figuring warp making plain cloth with the stuffer picks on back.

Stenciled type: Back warp interlacing with the face picks in ground only.

Fabric shown in Fig. 62 has the following data as to its construction:

Figuring Warp: 36's cotton yarn, 56 ends per inch, take-up at weaving 25 per cent.

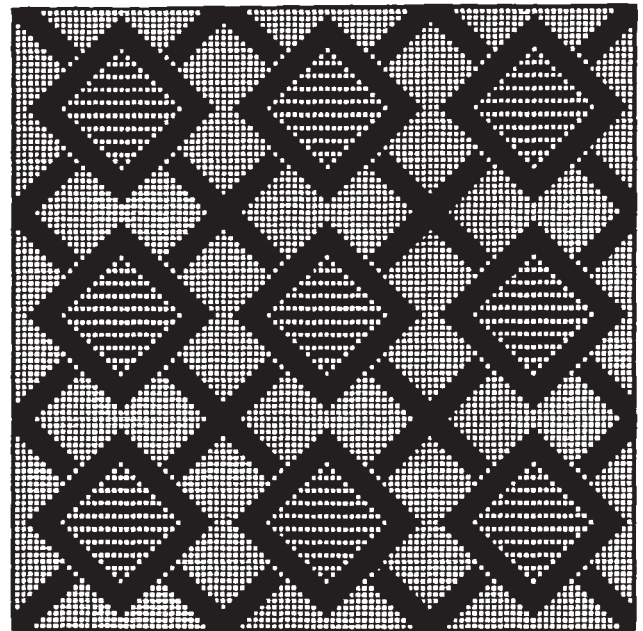


Fig. 63

Ground Warp: 24's cotton yarn, 56 ends per inch, take-up at weaving 3 per cent.

Face filling: 60 picks per inch, 36's cotton yarn.

Stuffer filling: 60 picks per inch, 10's cotton yarn.

Shrinkage in Width: 13 per cent, hence for a

fabric to come 26½ inches from loom (to be stretched for 27 inches for the market) lay it (26 + 13% =)

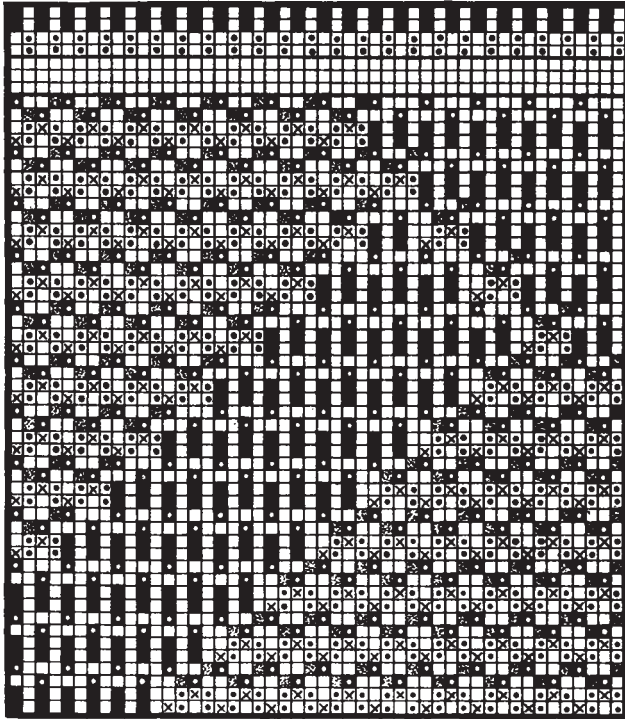


Fig. 64

30¼ inches in reed. Put 4 ends (2 figuring and 2 ground) in each dent.

Design for Plush Fabric.

The above shows the face or finishing side of a



new, original and ornamental Design for a Plush Fabric, for which lately a patent has been granted.

PLAIN, TWILLS AND SATINS.
THE FOUNDATION WEAVES FOR TEXTILE DESIGNERS.

(Continued from page 45.)

SATINS.

The characteristics of fabrics interlaced with satin weaves is that they present a smooth lustrous face, the prominent diagonal lines, characteristics to fabrics interlaced with twill weaves as previously explained, being absent.

	2	5	1		5 th pick
	1	2		4	4 th ..
		3	1	2	3 rd ..
		2		2	2 nd ..
	1	1	2		1 st ..
	1 st	2 nd	3 rd	4 th	5 th → warpthread

Fig. 17

		1	2	4	5 th pick
	2	2		1	4 th ..
		1	2	5	3 rd ..
	1	2		3	2 nd ..
	1			1	1 st ..
	1 st	2 nd	3 rd	4 th	5 th → warpthread

Fig. 18

Joining warp-threads in satin weaves must never be stitched in successively taken picks, but one or more must be skipped. The same also applies to picks as interlacing with the warp-threads. The points or stitches where warp and filling interlace must be scattered, as widely apart and at the same time as uniformly as possible, the farther apart and the more equally distributed they are the more indistinct they will show on the face of the fabric, hence the more attractive the latter.

Satins may also be considered as double, *i. e.*, compound twills by drafting the foundation twill by means of a double, *i. e.*, satin draw, for obtaining the satin weave. It is this intermixing of these two sets of twill lines which breaks up the characteristics of the twill, and produces the smooth satin face, although both twill lines can be noticed by a close observation, if dealing with a clear face satin fabric, viewing the latter under proper angle.

Satins are always uneven sided weaves, *i. e.*, warp or filling effect, the former being the one most often called for, filling effect, although used in connection with some plain fabric structures as face, finding its most important use with figured work, when blending the same against warp effect weaves in the formation

	3	2	5	1	5 th pick
	2	4	1	3	4 th ..
	1	3		2	3 rd ..
		2	2	1	2 nd ..
	1	1	3		1 st ..
	1 st	2 nd	3 rd	4 th	5 th → warpthread

Fig. 19

	2	3	3	1	5 th pick
		1	2	3	4 th ..
	3	2		1	3 rd ..
	1	2	3	4	2 nd ..
	1			1	1 st ..
	1 st	2 nd	3 rd	4 th	5 th → warpthread

Fig. 20

of figured designs, both for harness and Jacquard work.

The lowest number of harness a satin can be made on is 5, after which, with the exception of 6, they can be constructed for any number of harnesses, 16 being about the largest satin we may come in contact with; 5, 8, 10 and 12 are our favorite satin weaves used in the construction of fabrics as well as for foundation for derivative weaves like granites, crepes, etc.