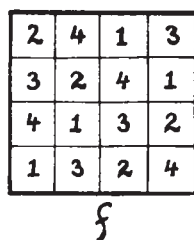
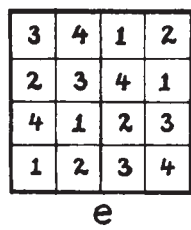
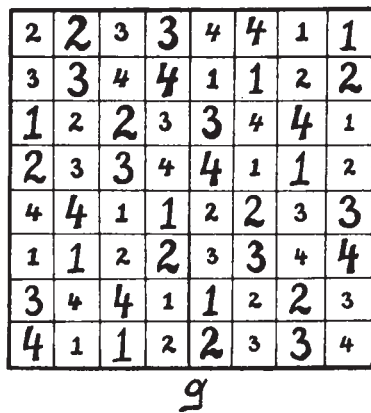
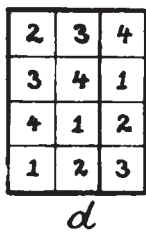
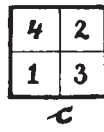
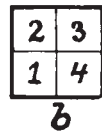
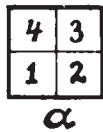


CREPÉ WEAVES.

(Continued from page 30.)

Paint a given figure in different positions, side by side as well as above each other, until the required repeat of the new crepé weave is obtained. Weaves Figs. 2 to and inclusive 8 will explain the subject, all seven weaves having motive Fig. 1 for their foundation. The respective positions of the latter are obtained by turning said motive four times, always 90 degrees, which four positions are then numbered 1, 2, 3 and 4 respectively; said numerals are then tabulated in an arrangement to correspond to that in the new crepé weave, in connection with which they are thus used.



Diagrams *a*, *b*, *c*, *d*, *e*, *f* and *g* represent seven different combinations of numerals 1, 2, 3 and 4, and refer (in rotation) to the formation of the seven crepé weaves Figs. 2 to 8; they will be quoted when referring to the construction of the latter.

Weave Fig. 2 is obtained from our motive Fig. 1 by placing the latter in the four positions called for in diagram *a*, on the point paper.

(1) Point motive with number 1 at bottom on the left hand lower corner on the point paper; see *cross* type.

(2) Turn motive 90 degrees, so its numeral 2 is at its bottom, and paint it (joining to it) to the right of the one previously painted on your point paper; see *dot* type.

(3) Turn motive again 90 degrees, so that numeral 3 is at its bottom, and paint it above the last one painted on the point paper; see *shaded* type.

(4) Turn motive again 90 degrees, *i. e.*, so that numeral 4 is at its bottom and insert it in this position, to the left of the last one painted, or what is the same, on the top of the first position of the motive painted on the crepé weave plan; see *full* type.

The result is crepé weave Fig. 2, repeating on 8 warp-threads and 8 picks, and which is shown in Fig. 2^a in one kind of type, in order to more clearly show the relation of the weave to the fabric structure where to be used.

Having explained the formation of one of these crepé weaves in detail, the other six will be referred to more briefly.

Diagram *b* shows a different placing of the four numerals 1, 2, 3 and 4 compared to that of *a*, resulting in weave Fig. 3; in the same way the arrangement shown in diagram *c* results in weave Fig. 4.

In all three weaves thus far quoted each of the four possible positions of the motive is only once used, hence all three weaves repeat on 8 warp-threads and 8 picks.

If we arrange these combinations of numbers 1, 2, 3 and 4, three in width and in height, we then get a crepé weave, repeating on (3 number of combinations × 4 repeat of motive used =) 12 warp-threads and 12 picks. If, however, every combination is to be used uniformly often in one repeat of the crepé weave, we then must use four combinations in height, with only three combinations in width, *i. e.*, use every combination of motive Fig. 1 three times in the complete repeat of the crepé weave. Diagram *d* shows the tabular arrangement of this combination, and Fig. 5 the resulting crepé weave, repeating on 12 warp threads and 16 picks.

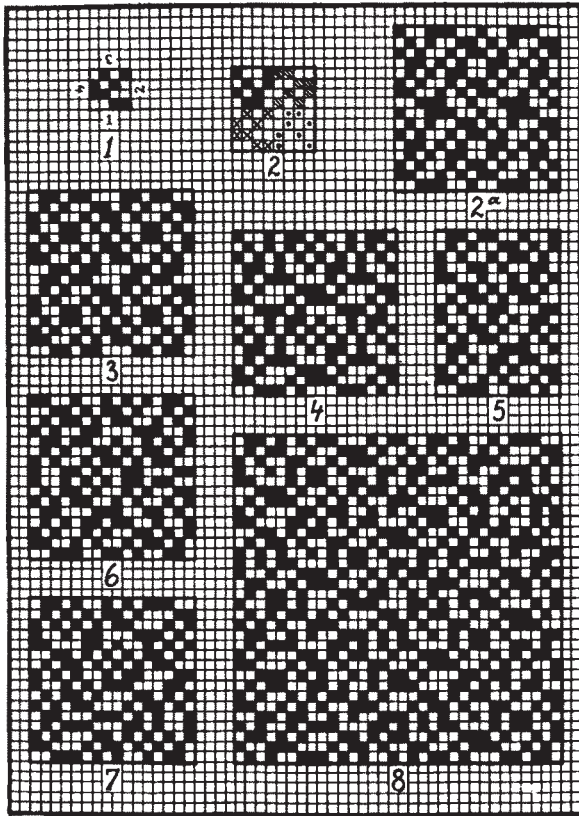
Weave Fig. 6 has for its mode of construction the tabular arrangement of motive Fig. 1 shown in diagram *e*, illustrating four combinations side by side, in both directions, resulting in a crepé weave repeating on 16 warp-threads and 16 picks. Diagram *e* shows a proper distribution of the changes of the motive, using every position called for in every row of squares, taken both in a horizontal and vertical direction. The displacement of each numeral is done after the four harness broken twill setting.

Diagram *f* shows a modification of the previously given tabulating, *i. e.*, positions 2 and 3 of the motive have been exchanged, the other two positions (1 and 4) not having been disturbed; the result is the crepé weave shown in Fig 7, repeating on 16 warp-threads and 16 picks.

Fig. 8 is a crepé weave obtained from placing motive Fig. 1 according to tabular arrangement given in diagram *g*. By this combination, every row, horizontal and vertical, receives eight changes, arranged after the 8-harness (transposed) satin for motive of distribution. Every horizontal row presents the arrangement 1, 2, 3, and 4, successively. Since these four combinations of the motive Fig. 1 will not fill up the complete repeat of the weave, we duplicated each position side by side, changing in the second position the starting of the motive, *i. e.*, using its picks in the arrangement of 3, 4, 1 and 2. This change has been indicated in diagram *g* by using bold nu-

merals where such a change in the starting of the motive has been made.

Crepé weaves thus constructed impart a uniform,



balanced effect to the face of the fabric in which they are used, omitting any possible line effects.

(To be continued.)

PILE FABRICS.

(Continued from page 33.)

Astrakhans.

These fabrics are also formed by adding an extra pile-warp to a single cloth, otherwise interlaced with

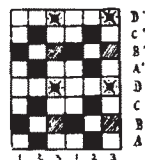


Fig. 21

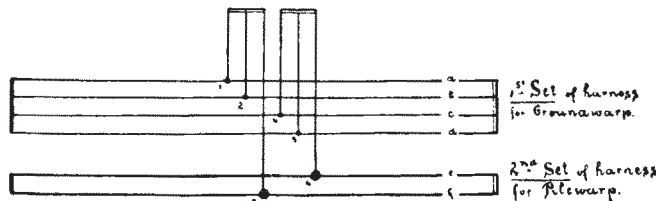


Fig. 22

plain, basket, rib, or common twill weaves, and are the nearest related (some weaves being exactly the same) to the velvet weaves previously given. We may either cut this pile (plush) or leave the pile uncut (terry), or we may use both in the same fabric, producing in

this way some of the most beautiful novelties for ladies' cloaking-trimmings, and similar fashionable articles.

Two systems of warp (ground and pile) and one system of filling are called for. Of these, the ground-warp, by interlacing with the filling, forms the body of the fabric structure, while the pile-warp through being interlaced to this ground structure and raised at certain intervals over wires (as required by the design), forms the face of the fabric.

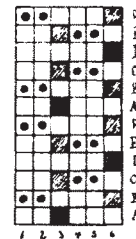


Fig. 23

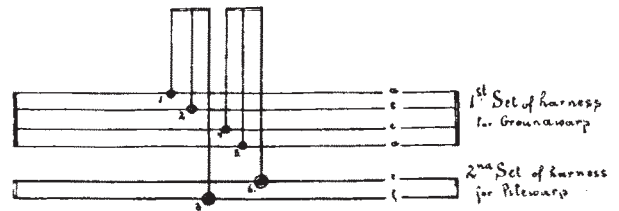


Fig. 24

ORNAMENTATION OF ASTRAKHAN FABRICS.

Fancy effects upon otherwise plain interlaced Astrakhan fabrics can be produced by various combinations. Among these are found: The use of different colors in the pile-warp; varying the length of the pile; combining terry and velvet effects, forming either terry figures upon velvet ground, or velvet figures upon terry ground.

Fig. 21 represents the weave for a plain Astrakhan fabric.

Repeat: 3 warp-threads and 4 picks; the entire pile warp (see numerals of reference 3 and 6) is raised at once over the wire as shown in picks D and D'.

Warp: 2 ends ground 1 end pile.

Fig. 22 represents the drawing-in of the warp on its corresponding two sets of harnesses.

Fig. 23 illustrates another weave for Astrakhans.

Warp: 2 ends ground 1 end pile.

Each pile warp thread is drawn on a separate harness, as shown in Fig. 24.

Fig. 25 illustrates weaving of a fabric interlaced with weave Fig. 23, showing 2 picks ground B, C and E, F, to alternate with one wire, A and D respectively. For inserting wire A harness f raises warp-thread 3, whereas for wire D, harness e raises warp-thread 6. The interlacing of the body structure is done with the 4-harness basket-weave having the two warp-threads between the pile threads working the same; also the pick before and after inserting the wire.

Fig. 26 is another weave for this class of fabrics.

Warp: 2 ends ground to alternate with 1 pile.

Filling: 2 picks ground to alternate with one wire.

The body structure is interlaced with the 2 by 4 (filling effect) rib weave, being placed so as to have the two ground threads, situated in the fabric near each

other, work opposite; *i. e.*, the ground-threads working on each side of a pile-thread raise and lower at the same picks.

Fig. 27 shows a fabric section being more partic-

ularly given to show the interlacing of the two systems of pile-threads. Pile-thread *A*, shown in outlines, forms loops *S* and *F*, while the other pile-thread, shown in black, forms loops *S'* and *F'*. Letters and numerals of reference in Figs. 26 and 27 correspond.

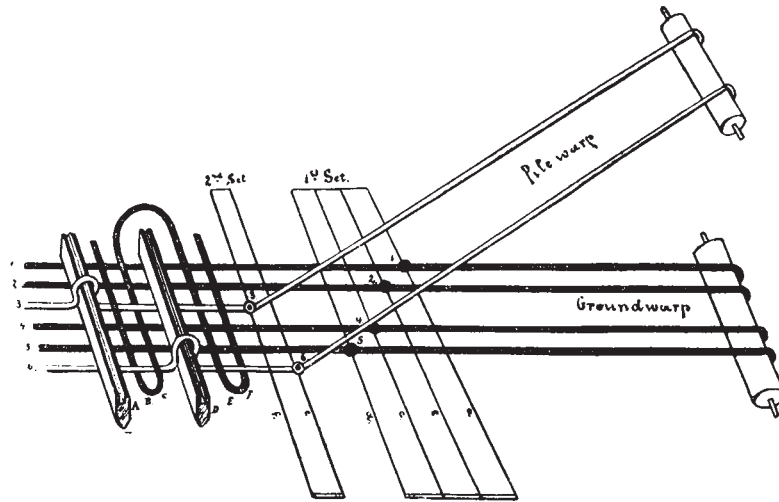


Fig. 25

ularly given to show the interlacing of the two systems of pile-threads. Pile-thread *A*, shown in outlines, forms loops *S* and *F*, while the other pile-thread, shown in black, forms loops *S'* and *F'*. Letters and numerals of reference in Figs. 26 and 27 correspond.

Double Plush

The end gained at in the manufacture of double plush as compared to the single plush previously explained consists chiefly in production, producing in this instance two single plush fabrics with one operation of the loom. In the manufacture of double plush the wires so conspicuously referred to in speaking of warp

previously explained, its pile-warp-threads, running across the centre or interior of the fabric, are cut automatically by means of an attachment on the loom, known as the cutting knife.



Fig. 27

Various methods for exchanging the pile-warp in weaving double plush, as also the different ways of interlacing (or fastening) these pile warp-threads to the ground-cloth of each fabric, are in practical use.

Fig. 28 illustrates the section of such a double-plush fabric. In this, four distinct sets of warp-threads are

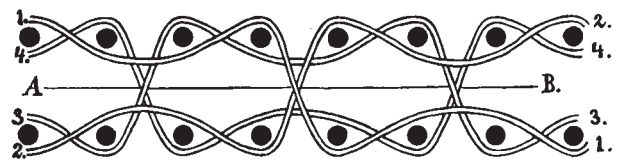
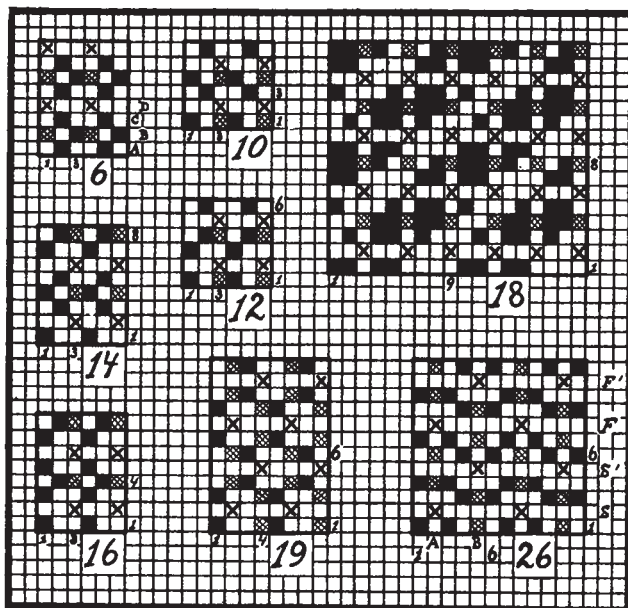


Fig. 28

shown, indicated respectively by numerals of reference 1, 2, 3 and 4. These four warp-threads and the sixteen sections of picks shown illustrate one repeat of the arrangement of the warp and filling, as well as the method of intersecting both systems, technically known as their weave. Line *A-B* in the diagram, indicates the direction for cutting the pile-warp.



pile fabrics, are omitted. The pile warp-threads, after interlacing into the body structure of one of the single fabrics, pass across to the body structure of the other fabric, where in turn they interlace before returning

PREPARING FABRICS FOR DYEING.

This refers to a late English patent in which textile fabrics are prepared for dyeing by subjecting them to a direct rubbing face-contact with one or more fixed bars, the edges of which impart a frictional bending action to the passing cloth which loosens or frees the "make," shakes off impurities, and partly eliminates the cover-fibres. When the cloth is passed over several bars, intermediate tension rollers are to be used.