THE TEXTILE MERCURY.

138

Designing.

NEW DESIGNS.

COTTON DRESS GOODS, Etc.

Design A is on 66 shafts, straight over draft, 29 to the round, 72 ends per inch for warp, 27½ yards cotton; 12½ yards cotton, 3½ oz. worsted. 

Warp pattern—200 of dark brown, 36 white, 4 dark brown, 36 white, 4 dark brown, 36 white, 6 dark brown, 36 white, 1 dark brown, 12 white, 12 dark brown, 18 dark brown, 8 white, 36 dark brown, 4 white, 36 dark brown, 2 white, 36 dark brown, 2 white; total threads in pattern, 550; the repeats commence from the 200 dark brown. 

Will pattern—the same. By retaining the white or some very light tint, the following fashionable shades may be used for designing myrtle, brown, brown, sage, emerald green, terra-cotta, olive, mauve, and “London smoke.” Pretty patterns may be obtained by a more convenient scale to the checking round by equal squares of two colors, 24 and 24, or 12 and 12. 

Design B is in 72 shafts. Cotton dress goods suitable for the Spring, in large plaid checks, 24 shafts, straight over draft, 21 to the round, 41 ends per inch for warp, 2 of 40's cotton warp, 56 picks of 30's cotton weft; perhaps too wide a fold for warp would result in more facility in the weave. 

Warp pattern—64 light cream or faint yellow, 41 peacock blue, 64 cream, 4 blue, 16 cream, 4 blue, 12 cream, 8 blue, 8 cream, 12 blue, 16 cream, 12 blue, 64 cream, 24 cream, 64 blue, 4 cream, 16 cream, 8 blue, 16 cream, 4 blue, 12 cream, 8 blue, 16 cream, 12 blue, total, 350 threads, and repeat from the first “64 light cream” white. 

Walt pattern—is the same. For peacock blue, the variations are black, dark blue, rose, green, fawn, straw, and buff. The diagonals are the monochrome of the plain ground, giving a very charming effect. 

Design C is in 3 Shafts, straight over draft, 13 shafts, straight over draft, 13 to the round. This design represents a class of patterns eminently useful for designing, whatever the material used in the construction. It is not always that design will be found adaptable to such a diversity of number of changes as can be found in this very simple weave. It only requires a little ingenuity of pattern weaver to obtain effects, if different colors, or different shades of the same colour, be used in the checking. 

We might easily digress from the course of this journal with details in connection with the variety of combinations easily produced from this design; but we can only call our selves to the following particular. For a good fancy-shirting, or lawn tennis cloth, 66 reed, two in a dent, 20's cotton for warp, all two in a heed, one heed per dent, 38 picks per inch of 20's cotton, two in a shed. This is to obliterate the use of drop boxes on each side. Warp pattern—2 navy blue and white. Walt pattern—2 navy blue, 2 dark brown, 2 white, 2 dark green, 2 white, 2 dark red, 2 white. If a break in the break is considered necessary, the checking may be continued for any distance, and by using four of white in place of the ordinary two of white a very singular change takes place; by again connecting with the two and two pattern, the angle, or rather run of the diagonal is removed 24 threads away from its original position, giving a very unique, handsome, and desirable effect. It will be found one of the most serviceable designs that a manufacturer can possibly entertain for a cheap cotton fabric.

FIGURED MANTLINGS.

In Design A is illustrated a type of figured mantle cloth at present much in favour. In the more elaborate examples a composite figure is formed, having a bulky or raised appearance, owing to the peculiar manner of utilizing double-plain with some solid weave, such as satin, or, preferably, crape. It will be observed that in the oblong figure given in Design B, double-plain is used throughout; but that the constant changing of the two cloths thus formed is all the binding that takes place. Owing to this fact, quite a raised or wadded appearance is given. Of course a wadding pick coming in between the two cloths may assist, but more depends upon the distance apart of the interchange. For example, should the interchange take place every six threads and picks, practically no raised appearance would result. Several methods of development seem to suggest themselves. First of all the fabric may be worsted, all one colour, under which condition a good crape weave for the ground would materially add to the effect. Another method suggested is a one and one change of colouring in the warp and weft, such as—

Warp.
1 thread 20's medium grey lavender.
1 thread 20's black.
1 thread 20's medium grey lavender.
1 thread 20's black.

In the solid colour intimated above, a somewhat coarser sett and yarn will prove more effective.
Should a cheaper cloth be required, cotton warp and mohair weft will be found most effective, care being taken to select a good ground weave and to set the cloth to give an angle of 45° in the bending of the weft in the double plain.

**ANALYSIS OF PATTERN IV.**

**FANCY COMBINATIONS.**

Having discussed the means of arriving at the weave of the simpler cloths, our attention must now be turned to combinations of the foregoing, such as stripes, checks, etc.

Stripes are easily treated, the weave of each section being analysed separately, and then combined in the best manner. Thus, for example, the weaves of such a stripe as that represented in *Diagram 6a* may be taken from the surface by means of a piece of glass; let us suppose they are respectively *Diagram 1* and *Diagram 6a*—then there is usually no need to examine the exact way in which they are combined in the cloth, which would be only waste time, for they may be equally well combined on design paper irrespective of the cloth.

In *Diagram 6a* are given two threads out of the same cloth, which is a stripe composed of the weaves given in *Diagram 7*. Thread 1 has been taken out of section 1 on the design, being Mayo or Campbell twill, a = two down, b = one up, and c = two down, and d = three up. Thread 2 is taken from section 2 of the design, being two-and-two twill or rib. Of course a weft pick would show alternately sections of each weave.

Checks may be treated in very much the same manner, the weave being taken off each section of the pattern and combined as efficiently as possible. For example, in *Diagram 7*, a thread and pick taken from a fancy check are given. The construction is demonstrated in *Diagram 8b* and *Diagram 8a*, which it will be seen is composed of warp and weft ribs and 2-and-2 twill, a careful inspection of the curvature of these threads reveals the respective components. In the thread 1 and the pick 2, a = warp rib, b = 2 and 2 twill, and c = weft rib. Thus again it is evident that the minute inspection of each individual thread and pick may reveal to a considerable extent the structure of the fabric.

*(To be continued)*