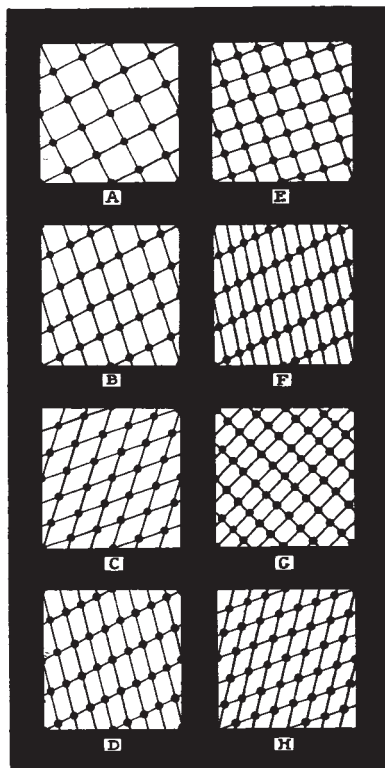# Jacquard Designing.
Satin Motives.

Satin Motives, as used for distributing figures in Jacquard designing, are constructed on geometric and mathematical principles.

Each regular type of satin divides the area of threads and picks of its repeat into a number of equal rec-

tangular spaces, corresponding with the number of intersections in the weave, *i. e.,* its motive.

They form the best method of distributing figures in connection with Jacquard designing, preventing (if carefully handled and the proper repeat used) any chance of forming stripes in the fabric, the latter affair being in many instances, the cause of "seconds."

To show the construction of these Satin Motives, the accompanying collection of eight diagrams is given. They constitute the spaces into which a square is divisible by the intersection points in the five, seven, eight, nine, ten, eleven and twelve-thread satins; two repeats each way of each effect are given.

These points may be readily found by the following

Rule: Divide the square into as many sections as there are warp-threads and picks in the repeat of the satin, and on which mark the respective satin weave, drawing lines through the points of intersections as shown.

The intervals (that is, the number of warp-threads and picks from one intersection to another) from point to point being equal, the sides of the square or rectangular spaces (as the case may be—*A* and *B* square, the other six showing rectangles) coincide. Such distances form a prime fraction of the pattern (motive for Jacquard work) or weave (for harness work).

The employment of the satin base (in the origination of design motives) imposes an even and systematic distribution of detail effects combined.

It should be remembered that two or more satins may be constructed on the same base, *i. e.,* number of harnesses and picks used in one repeat; the divisional form and grouping (but not the number, of the spaces) being variable.

Whatever prime number is selected in planning the satin weave, *i. e.,* motive, there is a second number complementary to it; one that affords the same geometric scheme, but with the spaces differently grouped. For instance, take the grouping of the 7-harness satin and when you may use 3 or 4, or 2 or 5, for a prime number for counting of your satin.

The five, eight, and ten bases (see *A, C* and *E*) are the most often used motives for setting figures in Jacquard designs, because they form (geometrically) a similar series of divisions both ways of the design and with the sectional spaces or figures the same distance apart; this equality of distribution and grouping obviates any particular line of effects being caused by the repetitions of the weave.

In the case of the seven, nine, eleven, twelve and similar types there are more rows (see *B, D, F, G* and *H*) of divisional spaces in a vertical than in a transverse direction, causing the spaces to be more compactly related in the length than in the width of the fabric. Row-like formation is detrimental to the composite character and regular appearance of the detail features in either the weave, motive, or the pattern.

Of the eight diagrams:

A shows by means of *dots* the construction of the 5-leaf satin motive for placing the figure, when planning the Jacquard design by

this method of setting. In a similar way,

B shows the 7-leaf satin motive,
C shows the 8-leaf satin motive,
D shows the 9-leaf satin motive,
E shows the 10-leaf satin motive,
F shows the 11-leaf satin motive,
G shows the 12-leaf satin motive,
and

H another 11-leaf satin motive, compared to the one shown in diagram *F,* but counted out with a different multiple of 11.

No regular satin weave or motive for setting figures in connection with Jacquard designs, can be made with 6-leaf satin (since that number cannot be divided into two prime numbers) and for which reason a weave, technically known as the "crow-foot twill" weave or motive, is used. In connection with using this motive, the distribution of the figures in the design results in two series of geometric divisions, three figures twilling in one and three in the opposite direction. Since the third intersection point in each series is centrally placed, it provides for the two bases, each being used, one as the start for one twill effect of distributing the figure, the other being the base for the reverse twill effect of distributing the figure. Since the centre points or divisions in the geometric form, in this instance, are equi-distance from each other, regularity of motive construction is obtained in which the presence of serial rows of effects is not apparent, it being a motive extensively used by the Jacquard designer.

Novelty in Fabric Design.
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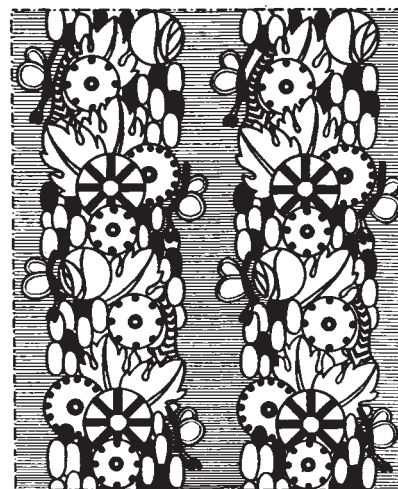
for Cretonne or Other Textile Fabric