

All ordinary filling spots, where the spots depend upon extra filling, are made more or less on the principle which we have just demonstrated. We need hardly point out, however, that any kind of weave—plain, twill or fancy, may be used for these fabrics; that the floats of the figuring filling may be of any length provided that special precautions are taken to display them satisfactorily; and that the stitching points need not be in regular order.

(To be continued.)

HONEYCOMB WEAVES

(Continued from page 5.)

Fancy Honeycomb Weaves Comprising Check, Checkerboard, Star and Rectangular Effects.

The accompanying three plates of weaves are given to illustrate some of the best specimens of honeycomb weaves suitable for practical use, a careful study of which will explain how similar combinations may be constructed by it.

Fig. 1 shows a novel Checkerboard Effect, 8×8 ends filling twill alternating in an oblique direction with 8×8 ends warp twill; the two twills run in opposite directions and exchange in both directions with 8×8 ends plain weave, for forming the depressed portion of the honeycomb. Repeat of weave: 16 by 16.

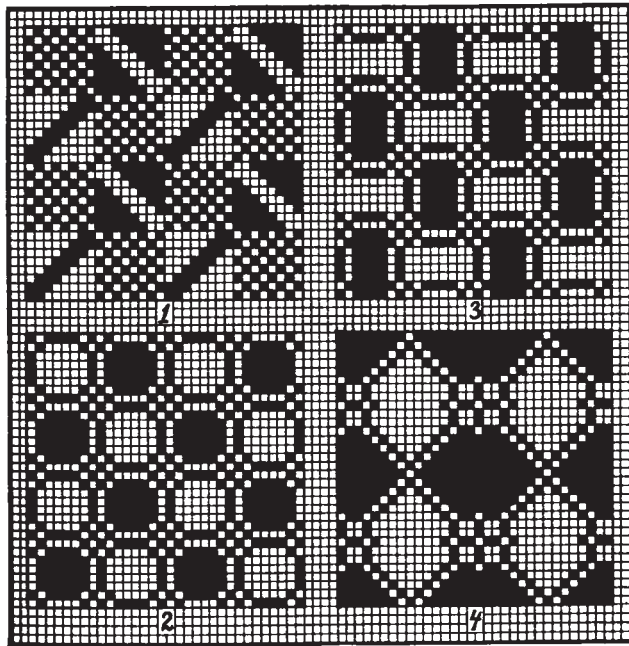


Fig. 2 shows a Check Effect produced by eight warp floats to alternate with eight filling floats, to produce the raised effect, a square of 4×4 ends interlacing with the plain weave forming the cell, *i. e.*, depressed portion of the honeycomb; repeat of weave 16 by 16.

Fig. 3 shows another Check Effect produced by floating 4 warp-threads for 8 picks, against 4 picks floating over 8 warp-threads. In either instance a

float over 4 is used on either side of the main floats previously referred to. The cell of the comb is again formed by interlacing 4 warp-threads and 4 picks with the plain weave. Repeat of weave 12 warp-threads and 12 picks.

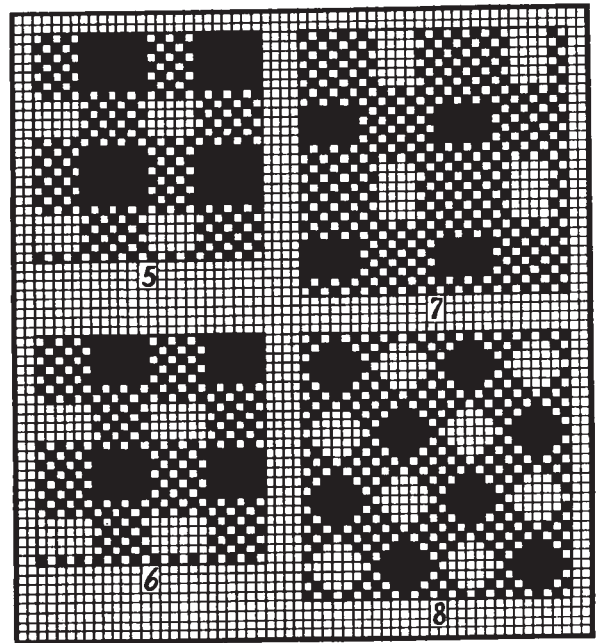


Fig. 4 shows a Diamond Effect, produced by warp and filling effect floats, distributed by the plain motive setting, the cell effect of the comb being in this instance produced by the $\frac{1}{2}$ - $\frac{3}{4}$ 3-harness basket weave. Repeat of weave 16 warp-threads and 16 picks.

Fig. 5 shows a Check Effect, in which the warp effect predominates if used with a balanced texture. Seven ends warp floating over seven picks are used against four picks of filling floating above five warp-threads, the cells of the comb being produced alternately by 5×8 and 7×4 . Repeat of weave 12 warp-threads and 12 picks.

Fig. 6 shows a somewhat similar Check Effect, six ends of warp floating alternately over seven and five picks, forming a check with four picks floating over seven warp-threads; the cell of the comb is alternately formed by 6×5 and 6×8 ends, interlacing with the plain weave. Repeat of weave 12 warp-threads and 12 picks.

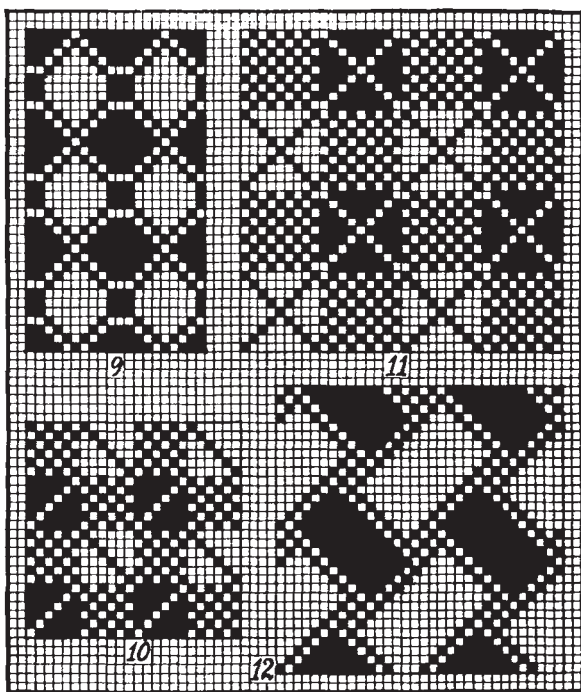
Fig. 7 shows a Honeycomb Check prominently on plain ground, producing what we might call a honeycomb on a low grade fabric sold in the piece only, for cheap bedspreads or similar fabrics. Repeat of weave 14 warp-threads and 14 picks.

Fig. 8 shows a small Diamond Effect arranged for a honeycomb weave, the cells of the comb being produced by 4×4 plain weave, set on the diamond the same as the two systems of floats. Repeat of weave 12 warp-threads and 12 picks.

Fig. 9 shows a pronounced Diamond Effect, forming the cells of the comb with 3×5 ends plain weave. The warp floats will impart to the general appearance

of the fabric a pronounced striped appearance. Repeat of weave 10 warp-threads and 14 picks.

Fig. 10 shows a neat Diamond Effect in a honeycomb weave, warp effect twills alternating in an oblique direction with its mate filling effect twill, both twills



being run in a reverse direction, either sets of effects being separated from each other by 6×6 ends interlaced with the plain weave for forming the cells of the comb. Repeat of weave: 12 warp-threads and 12 picks.

Fig. 11 shows a more prominent Diamond Effect. Pointed twills of 9×9 , warp and filling effects, are made to exchange in horizontal directions, each effect alternating in a horizontal and vertical direction with 9×9 ends of plain weave, forming the depressed portion, *i. e.*, cells of the combs. Repeat of weave: 18 warp-threads and 18 picks.

Fig. 12 shows Rectangular warp effects entwined with corresponding rectangular filling effects. 3×3 pointed effects, interlaced with the plain weave, are placed between the rectangular floats, in both directions for forming the cells of the honeycomb effect. Repeat of weave 16 warp-threads and 16 picks.

(To be continued.)

Testing Comestibles for Aniline Dyes.

M. P. Malvezin recommends the use of methanalsulphonic acid for testing comestibles, and particularly wines, for coal-tar colors. The acid is easily prepared by bubbling SO_2 through 40 per cent. formaldehyde. The wine or an aqueous extract of the food is decolorized with animal charcoal, and a little of the filtrate is warmed with its own volume of methanalsulphonic acid. If the comestible was free from aniline dyes, the color produced will be a pale-pink. Otherwise, it will be a pronounced violet, which may be too dark to be seen properly without dilution.

MANUFACTURE OF NARROW WARES.

Ribbons, Trimmings, Edgings, etc.

(Continued from page 7.)

WEAVES AND EFFECTS IN RIBBONS.

Every ribbon, the same as any other woven fabric is formed with two sets of threads; Warp-threads which rest lengthwise in the fabric and Filling threads which cross the former at a right angle, the latter being inserted by the shuttle, hence commonly called picks.

The diagram designed to indicate the interlacing of warp and filling is known as the weave plan.

The paper used for the latter is known as textile designing paper or more conveniently point paper. The same has its surface crossed with numberless horizontal and vertical lines forming either squares or rectangles, depending on the texture of the fabric under consideration.

The space between any two vertical lines represents a warp-thread, that between any two horizontal lines a filling thread, and the small square, where the respective row of horizontal and vertical squares meet, is the point where it then remains for the designer to indicate which of the two systems of threads is to be up (in that spot) or down.

The design, *i. e.*, the weave is then produced by the designer painting or indicating otherwise, on every vertical space, which of the warp-threads are to be up, on the respective pick, and which are to be down, and in turn covered by the filling.

In some instances it may be found advisable to paint the design in the reverse way—in this instance a memorandum must be made on the design paper, *i. e.*, take white or empty for warp up.

Point paper is ruled to conform with the finished texture (warp-threads and picks) of the fabric to be made, for which reason point papers are ruled in an endless combination.

Point paper ruled 8×8 or 12×12 , etc., *i. e.* point paper ruled even, means that warp-threads and picks in the finished fabric will be equal.

Point paper ruled 12×6 means that finished fabric is to contain twice as much warp-threads as picks to one inch. Explanations thus given refer more particularly to large figured designs, where the latter must represent a true representation of the general appearance of the design or weave in the fabric.

For the average design on the harness loom the common 8×8 paper is the one mostly used, no consideration to the texture of the fabric being then paid.

For convenience of counting, point paper is overlined with heavy squares, to make it easier to count the repeat of the weave.

Example: 8×8 paper. 64 warp-threads repeat of weave are easily counted by taking the heavy over-ruling into consideration and when 8 heavy over-rulings indicate the repeat of the weave, whereas if paper was not over-ruled a mistake might occur, a mistake hard, if not impossible, to correct.

WEAVE means the method of interlacing warp and filling threads.

THE REPEAT of a weave comprises the smallest number of threads and picks in which the pattern is once completely contained.

Foundation Weaves.

There are three systems of weaves from which any weave met with is derived. The same are: Taffeta, Twills, and Satins.