

### Regulating Moire Figures

Moire figures are largely dependent upon chance for their form and size, although various attempts are made from time to time to regulate the design. The latest of these efforts has been patented, and the procedure is given below:

As compared with the processes in vogue, the new system consists in the employment, as ground or impression, of a material produced by means of an irregular or fancy reed, this ground material being pressed together with a fabric which has a uniform lay of the thread, and which has been produced with a regular reed. When the two fabrics are pressed together, similar effects are produced on the contact surfaces, these effects being in the nature of light-reflecting figurings with sharply-defined outlines. The two fabrics are then separated and used separately. By means of the process it is possible to produce not only shell-like moiré effects, but also broad watered patterns of the same kind with sharp outlines, and a coincidence of the figures such as have not been possible before. It is also possible to produce by impression figured moiré with regularly-recurring sharply-outlined figures on fabrics with plain interwoven stripes, as well as to impress them on fabrics with an irregular lay of the thread. The outlines of the moiré figures may be brought close up to the edges of the plain stripes.

The deviation from the regular lay of the threads in the warp of the ground material is best effected by means of reeds, the splits or dents of which are arranged in groups in such a manner that the dents of each group are at a different distance from each other, or have a different direction in relation to the bars of the reed to that of the dents of the adjoining group. The alteration in the position of the filling of the ground fabric may be effected by reeds in which the different dents extend to different heights, so that a line taken along the various points forms the figure corresponding to the moiré pattern.

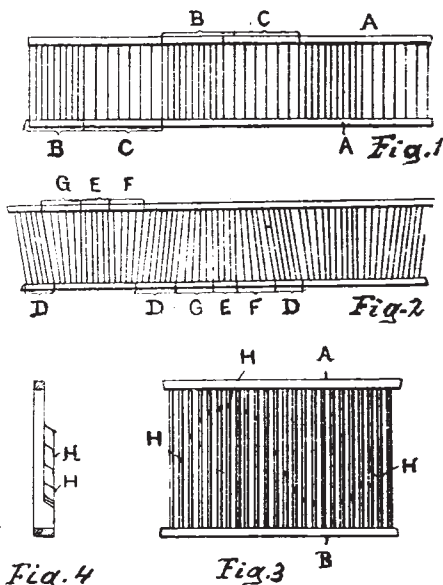


Fig. 1 illustrates a reed in which all the dents run at a right angle to the bars A. The dents of the groups B are at shorter distances apart than those of the group C.

In the arrangement represented in Fig. 2 the dents of the groups D and E run parallel with those of the same group. The

group D lie obliquely to the bars A, while the dents of the groups E run at right angles to the bars. In groups F and G the dents are arranged divergently to those of the same group. Figs. 3 and 4 are respectively front views, and section along the line A B

of a reed in which the upper parts of the dents are arranged at different heights in relation to one another, so that a line carried along the points produces a wavy figure in the reed. The levels of the dents can be varied alternately at the top or the bottom end.

In case the dents of the reeds in Fig. 1 run off in the manner shown in Fig. 3, a fabric can be produced in which the warp threads run in the same direction in relation to one another, but yet are at unequal distances apart, while the picks are thrown in different ways corresponding to the arrangement of the heights of the different dents, so that a pattern similar to the figure formed by the line carried along these points representing the different levels of the dents is produced as the reed is moved upwards and downwards. In the arrangement of the dents as in Fig. 2 a shifting of the warp threads is likewise effected.

The reeds are moved regularly or irregularly upwards and downwards according to requirements, very much in the same way as during *ondulé* weaving.

### Pearl Knitting Machines.

At the present time there are, without doubt, a large number of pearl knitting machines in this country not being employed to the fullest extent of their capacity, and probably many manufacturers are not aware of the full extent of their usefulness and adaptability.

The pearl machine may be either circular or flat, and although some bearded needle machines are employed, by far the larger number of machines work with double-headed latch needles.

It is a significant fact that the pearl machine is the only machine that will produce the three standard types of plain weft knitting, viz.: (1) plain knitting or framework knitting where all loops are similarly connected; (2) rib knitting in which vertical wales of loops are connected on opposite sides, and (3) pearl knitting where alternate rows or parts of rows are connected on different sides. Most manufacturers seem to be possessed of the idea that fabrics other than pearl cannot be made economically on these machines, and others altogether fail to realize that many different types of pearl knitting can be made. This is due in part to the fact that many pearl machines were bought at the tail end of the great boom in pearl knitted goods which raged three or four years ago. This boom was followed by a sudden slump, so that some manufacturers purchased machines which were little used, and since then these have been neglected. Another point that has militated against the use of pearl machines is that for some types it has been extremely difficult to obtain needles and sliders or jacks. Notwithstanding this drawback, however, it is quite possible to put a large number of pearl machines to good use, as classes of goods which are eagerly sought after could be made on this class of machine.

In the first place, there is a good demand at the present time for ladies' spencer coats made from a slack 1x1 pearl fabric. These garments are very light, and, consequently, the cost of the yarn is not so great. They can be worn under an ordinary coat or without any further garment, and their appearance is pleasing, whilst they are comfortable to wear, thoroughly hygienic, and give the requisite amount of warmth. There are great possibilities with regard to cut and style, and if this question was tackled properly, no doubt success would be assured.