

Flamengo—A New Parisian Mixture Fabric

An Acetate Warp, Viscose Figure Warp, and Worsted Crepe Filling Fabric, Which Offers Unique Possibilities—Complete Weaving Details of This Latest of Parisian Fabrics—Piece Dyed, Leaving Viscose White.

By W. F. O.

The name "Flamengo" is copyrighted by the famous fashion creator, Bianchini. The fabric which this name represents is the latest creation in mixture fabrics, which has set France afire. It constitutes one of those lucky strikes in the fashion world, and is opening a wealth of ideas and variations to the clever fabric designer. Many of these possibilities are discussed and illustrated in this article by a competent European technical authority.

The fabric is made with an acetate ground warp yarn, a viscose figure warp yarn, and a worsted crepe filling yarn. The manufacture of such goods presents two possibilities: (1) to use skein dyed yarns for the acetate ground warp and worsted filling; or (2) piece dyed, leaving the viscose extra warp white. The latter is preferred, of course. The fact that such fabrics can also be made with extra filling yarn is well known, but the necessity for box looms and extra harnesses has quickly caused this idea to be abandoned, primarily from the standpoint of production and design.

The ideal method is to use the ordinary dobby loom with 2 x 2 boxes, filling repeat on 4 picks, 2 right twist and 2 left twist worsted crepe filling yarn. The figure is created by a viscose rayon warp yarn, placed on an extra warp beam. The goods are woven in the natural or grege and later piece dyed. The ground warp consists of acetate yarn, with an extra warp beam containing the viscose figure yarn. The ground weave is plain for the sake of cost. The viscose figure warp yarn is tinted, so as to enable the weaver to keep it apart from the ground or acetate warp yarn on the loom. The same applies to the filling yarn. In this way no mixed yarns can occur in weaving. With our modern chemical technique the dyeing of this mixture fabric, leaving the viscose white presents no particular difficulties.

Wide Range on Dobby

While some might be inclined to believe that the possibilities of figure work and variation are small on a dobby loom with limited harnesses, the illustrations at Fig. 1 to 13 disprove this completely. It is entirely a matter of clever manipulation and combinations in the theory of weaves.

It is well for one to consider the construction of the fabric and the arrangement of the extra warp yarns and their repeats. The choosing of suitable yarn sizes for these two warp yarns in relation to each other is very important. To use 2 ground yarns and 1 figure yarn creates a fabric which is expensive and also appears too bright, especially when the ground is dyed a dark shade and the extra viscose warp is left white. Very beautiful effects can be obtained by a 6-end ground and 1 end figure arrangement, which can also be caused to run in an irregular fashion.

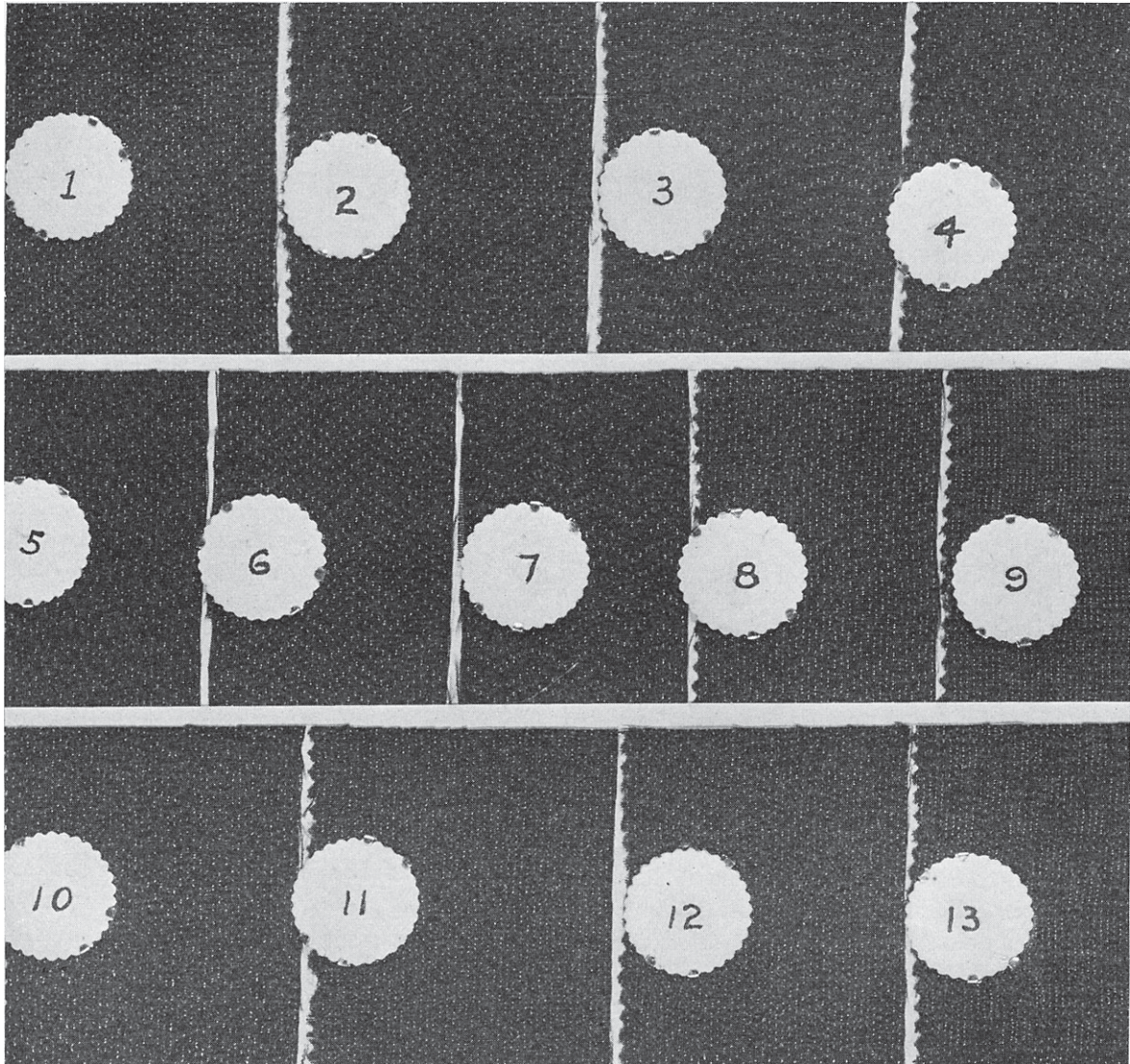
An added advantage in the manufacture of this fabric is that the figure warp can be left out at will, without disturbing the ground fabric, because the same can also be made in plain colors and constitutes a staple number in a manufacturer's line. Hence the reeding is regular for the ground fabric and the extra warp is reeded in as extra ends in certain selected dents. If the ground warp reeds 3 in one dent, the extra viscose warp is added in some dents, making 4 in a dent. In arranging the reeding of the extra ends it is well to put the extra ends on the same side in the specific dents. This makes for simplicity in weaving and tying-in of broken ends. The figure ends are drawn on the back harnesses. The ground warp can be drawn on 2 harnesses, usually nearest the lay, but more than 2 harnesses can be used if the construction of the cloth necessitates

it. The less harnesses are used for the ground weave, the more harnesses are available for the figure warp.

In the accompanying design, carried out on design paper, the ground weave is plain and drawn 3 per cent. Hence, in consideration of the weaver, six shafts are used for the ground cloth and the drawing-in draft and reeding come out even at all times. The arrangement of the extra warp ends to the ground warp is 1 to 6,

Length of Floats

The next important point that must be considered in designing all sorts of variations in the figures, formed by the extra warp, is the floating of these ends on the back of the fabric. These floats must never be allowed to be so long as to permit catching while the fabric is being finished, dyed, or made up into garments. From practical experience $\frac{1}{8}$ to $\frac{3}{16}$ of an inch is the longest



Showing Variety and Character of Patterns in Flamengo Fabric

respectively; this also adds to the simplicity of the weaving and drawing-in. The extra warp requires 6 harnesses, making a total of 12 harnesses for the entire fabric. The drawing-in of the extra viscose warp is pointed; i. e., 1, 2, 3, 2, 1 and 4, 5, 6, 5, 4; which was purely accidental, but very convenient, in that it does not complicate the arrangement.

permissible float on goods of this kind.

Another factor to be contended with in this fabric is the fact that if one extra end is pulled tight, it actually appears to be missing when the fabric is viewed at a certain angle. These factors must be taken into very serious consideration when making up the patterns. In the accompanying design layout, one pattern is com-

pletely drawn out, showing the complete repeat, with drawing-in draft, method of reeding, and chain draft. Figs. 1 to 13 show patterns for the extra warp ends only.

The great advantage of all these extra warp patterns is that they can be woven on the same loom by merely changing the dobbie chain. No alteration of the drawing-in draft is necessary. Hence, as the orders come in for the various patterns, looms can be put on them immediately. For reasons of greater ease and control of missing or broken extra warp yarns during weaving, it is advisable to weave the fabric with the back side up. This permits the weaver to note an extra end out much more quickly, especially if no warp stop motion is used on the extra warp. It is also imperative to choose a very even, well made first quality viscose rayon yarn for the extra warp, as any irregularity has a tendency to disturb

10 and 13. This is to make the line complete and varied.

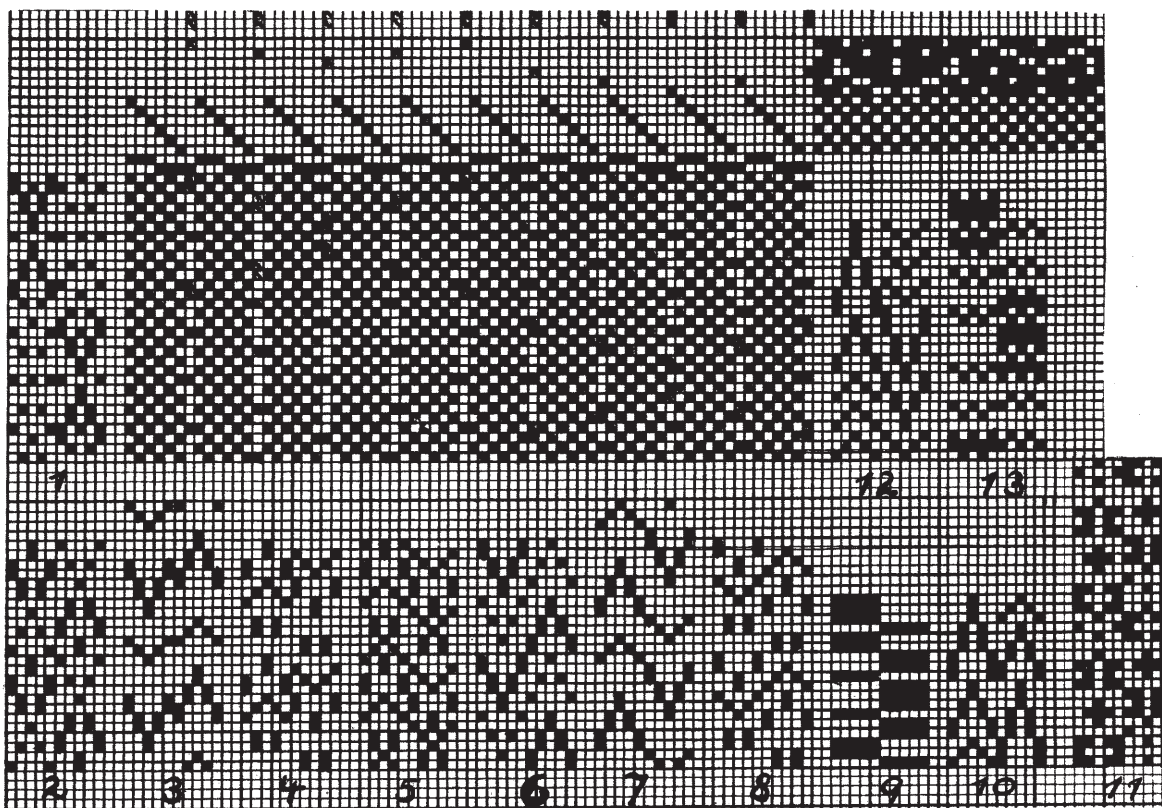
These designs also vary in the length of the floats, and can be divided according to this angle. A very important point is that the weaving-in of the extra viscose ends be perfectly uniform, and any irregularity here will be reflected in the goods at once.

It must be mentioned here that a 3 leaf filling twill can be used, but it does require a closer setting of the ends in the acetate ground warp. This, of course, increases the cost of the fabric and eliminates the floating of the extra warp ends over one pick entirely.

Weaving Precautions

The following precautions in weaving must be taken:

(1) No crossing-over of warp ends in back of the harnesses. This can cause considerable trouble and



Figs. 1-13. One Design Complete, with Drawing-in Draft, Method of Reading and Chain Draft; also Practical Patterns for Extra Warp Ends

the uniformity and outline of the figures. The twist should not be too loose in this yarn.

Another point is the variety established in the patterns 1 to 13. A very subdued tweed character is given to the fabric in designs 2, 4, 8 and 11. In designs 1, 3, 6, 7 and 12 small, well defined horizontal zig-zag lines are developed across the goods. A very strong and pronounced check effect is brought out in figures 5, 9,

spoil a whole warp on account of the tension in such yarns.

(2) To avoid as far as possible tight figure ends. This is occasioned when tying-in a broken figure end and weaving it in too tight. Also avoid wrong draws or crossed ends in the harnesses.

(3) To always reed the figure end on the same side in the dent, and observe the proper repeating of the figure

ends in the dents. If this is disturbed the cloth will be faulty and useless.

The above presents no difficulties which cannot be overcome or guarded against by any competent weaver, if properly instructed. By observing these small hints,

there should be no difficulty in producing a clean cut, technically perfect and well thought-out piece of merchandise, which has numerous applications and uses in light weight dress goods.

