

No. 638,818.

Patented Dec. 12, 1899.

T. F. STIMPSON.

PRINTED FABRIC AND METHOD OF PRINTING SAME.

(Application filed Apr. 23, 1898.)

(No Model.)

Fig. 1.

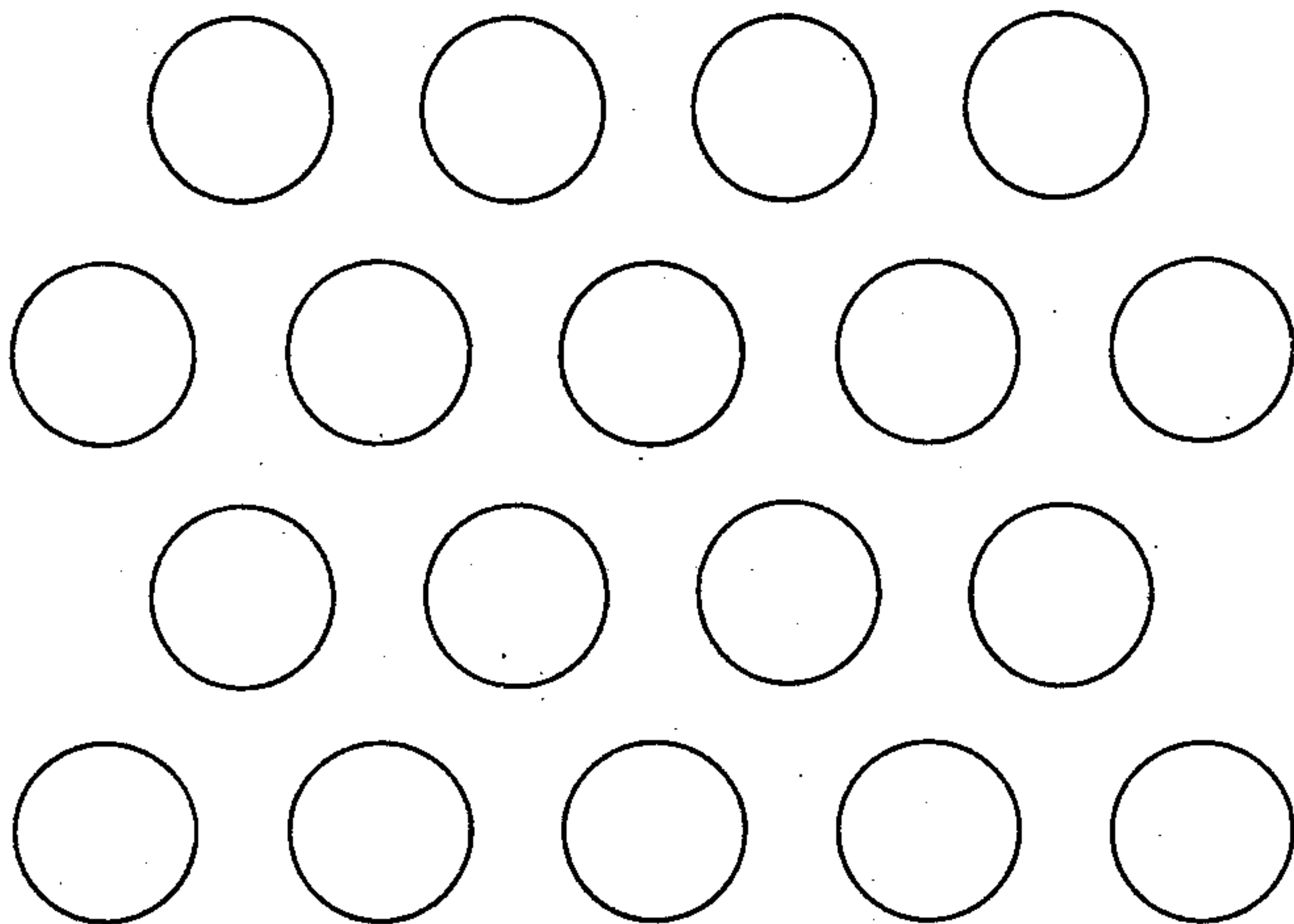


Fig. 2.

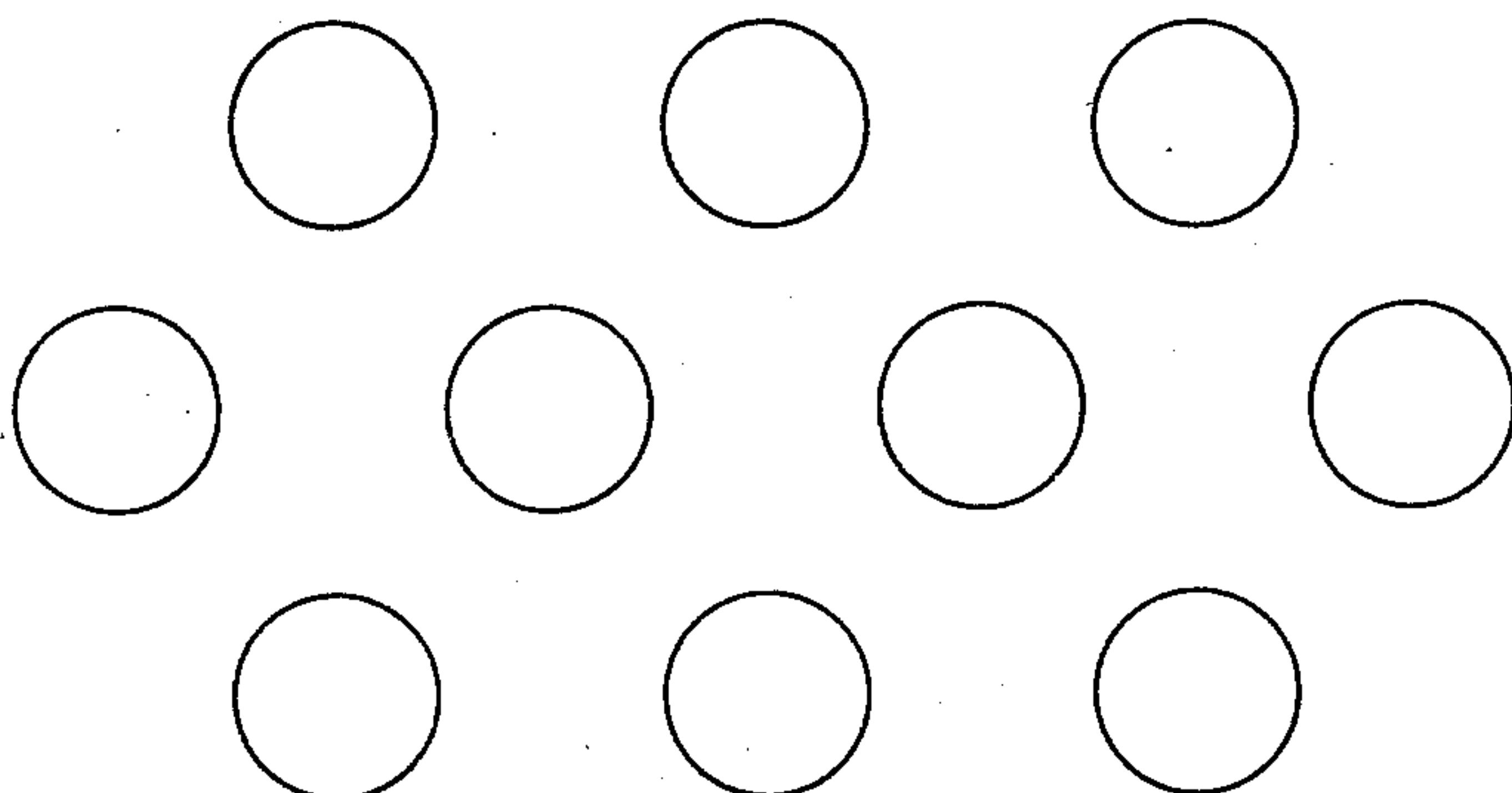
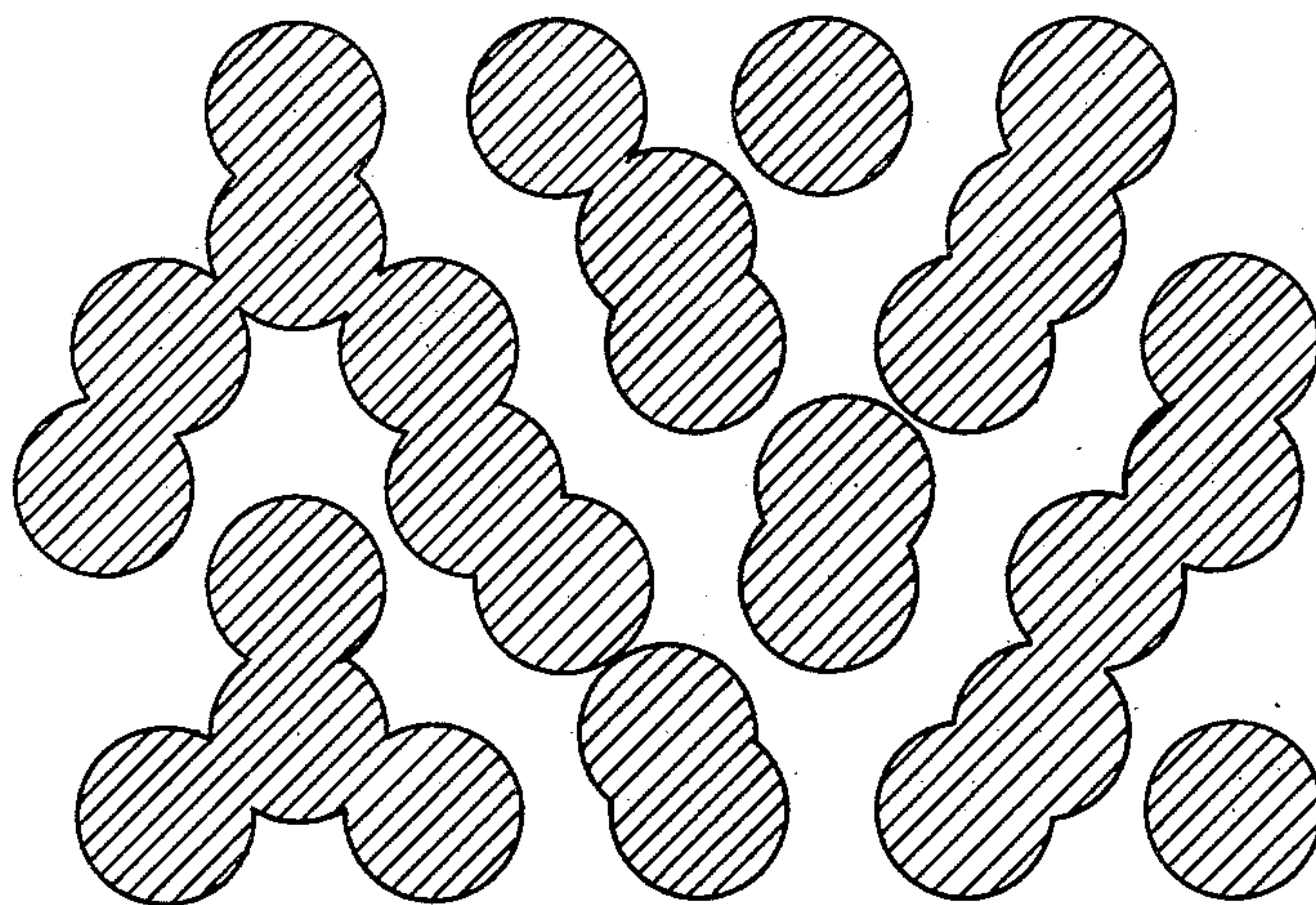


Fig. 3.



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## PRINTED FABRIC AND METHOD OF PRINTING SAME.

SPECIFICATION forming part of Letters Patent No. 638,818, dated December 12, 1899.

Application filed April 23, 1898; Serial No. 678,657. (No specimens.)

*To all whom it may concern:*

Be it known that I, THOMAS F. STIMPSON, of the city and county of Providence, in the State of Rhode Island, have invented a certain new and useful Method of Printing Fabrics; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a full, clear, and exact description thereof.

The object of the invention is to provide certain novel and striking effects in printed fabrics; and to that end it consists, primarily, in printing two or more patterns the figures of which do not register, but combine in a varying manner to form a new pattern in which the original patterns do not appear, but become lost or merged in the new pattern, the figures of which vary in an irregular manner. For the purpose of more fully explaining the invention some of the various ways of practicing the invention will be described.

In using the process to form patterns having white figures upon a plain background it is preferred to produce the figures by "resist-printing," and the manner of practicing the method will first be set forth in connection with resist-printing. The fabric in such case is padded with the color-producing liquor and then dried. Two or more patterns the figures of which do not register with each other are then printed upon the fabric in a "resist." The fabric is then treated in the usual manner to develop the color, thus producing a colored ground with white figures. Since the figures of the resist-pattern do not register with each other, varying portions of said figures will overlap, and the figures of the original patterns will not appear upon the dark background after the color is developed; but the white figures will be formed by varying portions of the original figures combined to form new figures differing from each other and from the figures of both the original patterns. The figures of the original patterns may be the same, if desired, provided they are printed out of register; but it is preferred to use patterns having different figures, and it is also preferred to use one pattern at least composed of blotch figures, as with such patterns more striking effects may be produced.

Instead of producing the figures of the patterns by printing with a resist and then developing the color the figures may be produced by printing the color directly upon the fabric, or the figures of one pattern may be printed with a resist, and the second pattern may be printed directly. Again, the figures of one or more of the patterns may be printed in a discharge, which removes the color already printed or developed upon the fabric, or other methods of producing the figures may be used without departing from the invention.

Instead of producing a pattern composed of light figures on a plain ground the ground may be variegated, if desired, and the figures produced by the combining or merging of the two patterns may be in a single color or in a number of colors. Thus a pattern having white figures on a variegated ground may be produced by printing a variegated pattern including a white figure and removing portions of the color-pattern either by printing the figures of a pattern upon the fabric in resist before the printing of the color-pattern or by printing the figures of a pattern in a discharge after the printing of the color-pattern. In the former case when the fabric is finished the colors which were applied over the resist will be removed and the resist-figures will combine with the white figures in the color-pattern to produce a new pattern in which neither original pattern will appear. In the case of the discharge the color will be removed by the discharge and the discharge-figures will combine with the white figures of the color-pattern to produce a new pattern. Instead of a white resist or discharge a color resist or discharge may be used. Should the color of the resist or discharge be the same as some of the figures in the variegated color-pattern, then the figures of a single pattern printed in resist or discharge would combine with the figures of that color in the color-pattern to form a new pattern in which neither the color-pattern nor the resist or discharge pattern would appear. Should the color of the resist or discharge be different from the colors in the variegated ground, then two patterns should be printed in the resist or discharge which do not register with each other, but combine to form a new pattern.

For the purpose of illustrating the inven-



tion two simple patterns are shown in Figures 1 and 2 of the accompanying drawings, and in Fig. 3 is shown a third pattern which may be produced by combining the patterns in Figs. 1 and 2. Suppose the series of circles arranged as in Fig. 1 are printed in black and a second series of circles arranged as in Fig. 2 are printed in black. Then owing to the fact that the figures of the two patterns do not register the circles of Fig. 2 will combine with the circles of Fig. 1 in a varying manner to produce a third pattern in black and white. (Shown in Fig. 3.) Neither of the patterns shown in Figs. 1 and 2 appear in the final pattern of Fig. 3, but varying portions of the figures of each pattern are merged with the figures of the other pattern, and the figures thus combine to form the figures of the new pattern of Fig. 3.

If instead of printing the figures of Figs. 1 and 2 in black they should be printed in a white resist and a color developed or printed upon the fabric, then the figures of Fig. 3 would appear as white figures upon a colored ground, the ground being a single color or variegated, as desired.

The patterns illustrated in the drawings are very simple patterns; but it will be apparent from the foregoing that by using patterns containing different figures or by using more intricate patterns and combining them in various ways a great variety of striking effects may be produced. The variations in the effects may be further increased in cases where the pattern produced is composed of light figures upon a dark background by printing a bright-color pattern the figures of which do not register with the figures of the dark-ground pattern, and which therefore will appear only in fragments upon the light figures, varying portions of the bright-color pattern being obliterated by the dark ground. In such case the figures of the pattern will not only vary in an irregular manner, but the figures will also be colored in an irregular and varying manner.

It will be understood that the order in which the steps of the method are performed is not material and that the figures of the patterns may be varied as desired and may be produced in any of the ways mentioned or in other suitable ways, and that, if desired, the figures of one pattern may be produced in a different way from the figures of the other patterns, or the figures of all the patterns may be produced in the same way.

It will be understood that the figures of the patterns may be produced upon the warp-threads of the fabric prior to weaving, although it is preferred to produce said figures upon the woven fabric.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The method of printing fabrics which consists in printing two or more patterns the figures of which combine in an irregularly-

varying manner to avoid repeats and form a new pattern in which the original patterns do not appear, substantially as described.

2. The method of printing fabrics which consists in printing two or more patterns having different figures which combine in an irregularly-varying manner to avoid repeats and form a new pattern in which the original patterns do not appear, substantially as described.

3. The method of printing fabrics which consists in printing two or more patterns the figures of which combine in an irregularly-varying manner to avoid repeats and form a new pattern in which the original patterns do not appear, one or more of said original patterns being of a blotchy character, substantially as described.

4. The method of printing fabrics which consists in producing upon the fabric a pattern having a dark ground and intervening light figures which vary in an irregular manner to avoid repeats and printing a bright-color pattern the figures of which do not register with the light figures of the dark-ground pattern substantially as described.

5. The method of printing which consists in padding the fabric with a color-producing liquor, printing two or more patterns in resist the figures of which combine in an irregularly-varying manner to avoid repeats and form a new pattern in which the original patterns do not appear, and developing the color, substantially as described.

6. The method of printing which consists in padding the fabric with color-producing liquor, printing two or more patterns in resist, the figures of which combine in an irregularly-varying manner to avoid repeats and form a new pattern in which the original patterns do not appear, developing the color, and printing a bright-color pattern the figures of which do not register with the figures produced by the original patterns, substantially as described.

7. A printed fabric having thereon figures which vary in an irregular manner to avoid repeats, substantially as described.

8. A printed fabric having thereon figures formed by the figures of two or more patterns combined in an irregularly-varying manner to avoid repeats, substantially as described.

9. A printed fabric having a dark ground and light figures which vary in an irregular manner to avoid repeats, substantially as described.

10. A printed fabric having a dark ground and light figures which vary in an irregular manner to avoid repeats, said figures being colored in an irregularly-varying manner, substantially as described.

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Witnesses:

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R. A. BATES.