

No. 705,977.

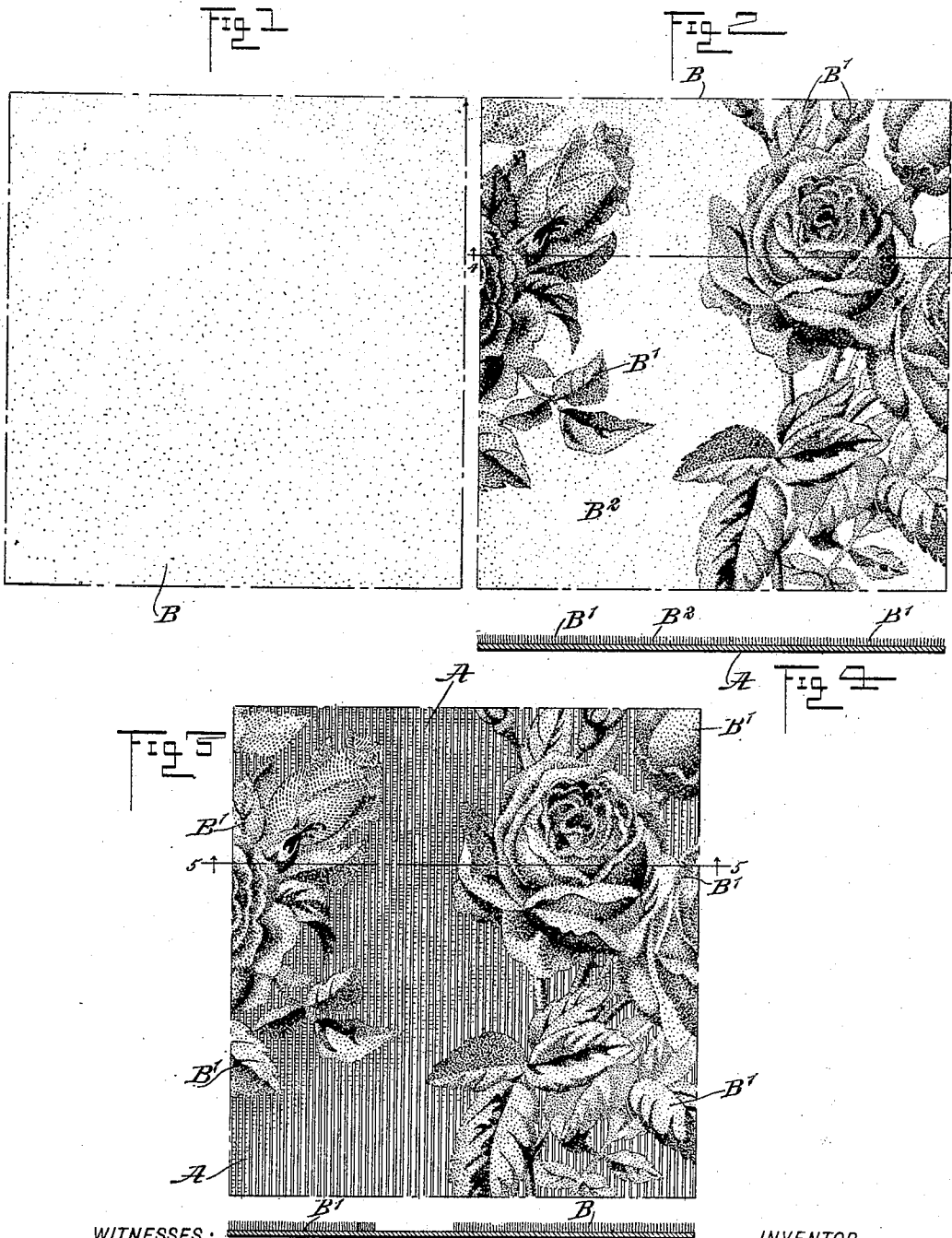
Patented July 29, 1902.

O. TIMME.

METHOD OF PRODUCING FIGURED PILE FABRIC.

(Application filed Dec. 4, 1901.)

(No Model.)



WITNESSES:

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METHOD OF PRODUCING FIGURED PILE FABRIC.

SPECIFICATION forming part of Letters Patent No. 705,977, dated July 29, 1902.

Application filed December 4, 1901. Serial No. 84,671. (No specimens.)

To all whom it may concern:

Be it known that I, OTTO TIMME, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Method of Producing Figured Pile Fabrics, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved method for producing figured pile fabrics in a simple and economical manner and forming without the use of a jacquard the desired pattern in relief and in color to closely imitate a jacquard-produced pile fabric.

The method consists, essentially, in subjecting a portion of the pile of a plain woven pile fabric to the action of colors according to a predetermined design and subjecting the remaining portion of the pile to the action of a pile-destroying medium, then steaming the fabric to fix the color applied and to aid in the final destruction of the pile treated with the pile-destroying medium, and finally removing the destroyed pile from the fabric.

In order to carry this method into effect, I proceed as follows, special reference being had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a face view of an ordinary pile fabric woven in gray or a single color. Fig. 2 is a like view of the fabric after its passage through the printing-machine. Fig. 3 is a similar view of the finished fabric. Fig. 4 is a cross-section of the fabric shown in Fig. 2, the section being on the line 4 4 of Fig. 2; and Fig. 5 is a sectional elevation of the finished fabric shown in Fig. 3, the section being on the line 5 5 of Fig. 3.

An ordinary pile fabric having a back A and pile B without a design thereon is woven in the usual manner on a suitable loom, so as to show the pile B either in gray or uniformly in any desired color. This pile fabric is now passed through a fabric-printing machine of any approved construction having a driven cylinder which forms the platen at the back of the pile fabric, the pile B of which is

exposed to the action of printing-rollers bearing the predetermined pattern on their peripheral surfaces. Some or all but one of the printing-rollers are connected with color-fountains for supplying the desired different colors to the printing-rollers, which in turn apply the colors to the portion B' of the pile and which portion B' is in relief on the back A in the finally-produced fabric. The remaining printing roller or rollers are connected with a fountain for supplying a pile-destroying medium, which in turn is carried by this roller or rollers to that portion B² of the pile B which is to be removed, and which lies between the portion B' of the pile. Thus the portion B' of the pile is colored and the remaining portion B² is treated with a medium tending to destroy it. The destroying medium varies in nature according to the fibers used for forming the fabric—that is, when the back A is of vegetable fiber and the pile B of animal fiber then I prefer to use a soda solution as the destroying medium. If the back A is of an animal fiber and the pile of a vegetable fiber, then I prefer to use sulfuric acid as the destroying medium. It is expressly understood, however, that I do not limit myself to the agencies mentioned. After the fabric has passed through the printing-machine it is steamed, so that the colors applied to the portion B' of the pile are fixed. During the steaming process the steam aids the destroying medium in the final destruction of the portion B² of the fibers, and then the portion B² is finally removed from the fabric by passing it between brushes or the like after the steaming process is over, so that the brushes remove the destroyed portion B² of the fiber to leave the portion B' in relief and colored according to a predetermined design.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The herein-described method for producing figured pile fabrics, consisting essentially in subjecting a portion of the pile of a plain, woven pile fabric to the action of colors to color this portion of the pile according to a predetermined design, at the same time sub-

jecting the remaining portion of the pile to
the action of a pile-destroying medium, then
steaming the fabric to fix the color applied
and to aid in the final destruction of that
5 portion of the pile treated with the pile-de-
stroying medium, and finally removing the
destroyed pile from the fabric, as set forth.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

OTTO TIMME.

Witnesses:

JOHN BOERKER,
FRED NAUMANN.