March 27, 1934. A. WOLFF 1,952,901

METHOD OF ORNAMENTING FABRICS

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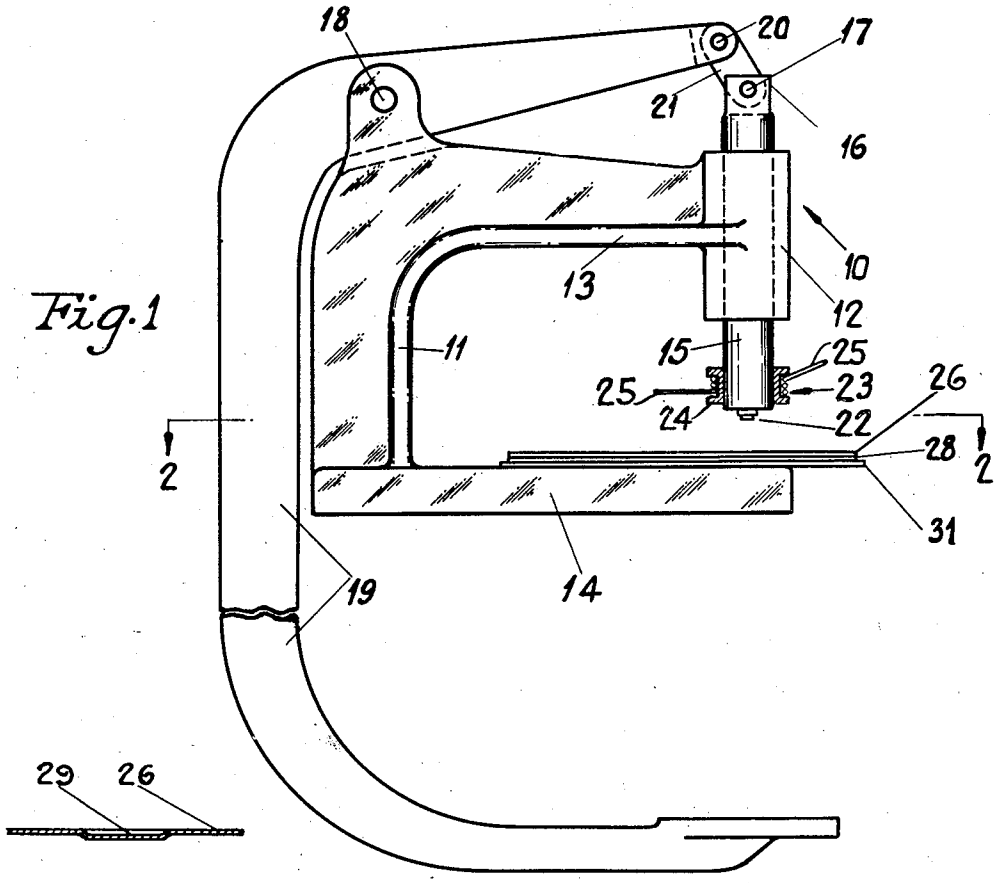


Fig. 1

Fig. 4

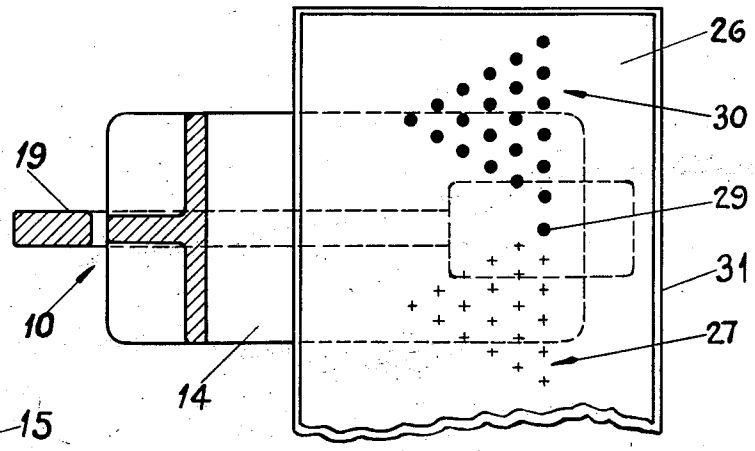


Fig. 2

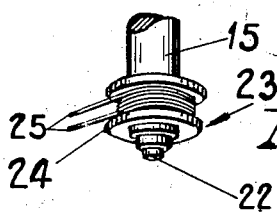


Fig. 3

INVENTOR.
ALFRED WOLFF
BY Joseph Blacker
ATTORNEY

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METHOD OF ORNAMENTING FABRICS

Alfred Wolff, New York, N. Y.

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2 Claims. (Cl. 101—32)

This invention relates to a new method of producing ornamental effects on fabrics by successively impressing an identical figure in step-by-step formation to form an impressed design in lacquer-like finish.

An object of this invention is to provide a new method of ornamenting fabrics, consisting in subjecting the fabric to the simultaneous action of heat and pressure at localized points and in causing a thin layer of foreign ingredient or material having a wax base to be absorbed by the fabric at said points.

Another object of this invention resides in a method of ornamenting fabrics and consisting in stamping the outline of a proposed design on a textile fabric, in superposing the stamped fabric on a sheet of waxed paper on the base-plate of a press, in placing a heated ornamental die against the fabric, in pressing the heated die simultaneously against the fabric and sheet of waxed paper at one point of the stamped design, and in moving the fabric in step-by-step formation to align the die with successive portions of the design and causing the complete design to be formed on the fabric.

With the above and other objects in view, the invention will be hereinafter more particularly described, and the relation of each step to one or more of the others thereof employed in carrying out my method will be shown in the accompanying drawing and pointed out in the claims which form part of this specification.

Reference will now be had to the drawing, wherein like numerals of reference designate corresponding parts throughout the several views, in which:

Figure 1 is a side elevation showing a preferred form of press employed to carry out my method of ornamenting fabrics.

Figure 2 is a sectional view, the section being taken as on line 2—2 in Figure 1, and shows a finished design and a skeleton outline of a proposed design which may be used in carrying out my method.

Figure 3 is a fragmentary perspective view of the die, plunger and heater in assembled relation.

Figure 4 is a fragmentary portion of the fabric showing an impression made by the die.

In the illustrated embodiment of the invention, the several views show a foot-press 10, comprising an open-side frame having an upright wall 11, a plunger-housing 12 depending from an overhanging wall 13 and a flat base-plate 14. Slidingly mounted for vertical reciprocation in the plunger-housing 12, is a cylindrical plunger 15 having a slotted upper end 16 and a pivot pin 17. Mounted on a pivot pin 18 is a foot-lever 19 having a pivot pin 20 at its upper end. A link 21 is mounted on the pivot pins 17 and 20 and connects the foot-lever 19 and plunger 15 in operating relation.

A cylindrical die 22 is secured in a socket at the lower end of the plunger 15 and a heating unit 23 is securely mounted on the plunger adjacent the die. The heating unit 23 comprises a properly insulated heat-resisting member 24 around which a high-resistance wire 25 is wound. An electric current passing through the high resistance wire causes the wire to get hot and to heat the plunger 15 and the die 22. The temperature being regulated to suit the particular fabric worked upon and is about 200° F.

In carrying out my method, a textile fabric such as silk or satin 26 has a skeleton layout of a proposed design stamped thereon as shown by the numeral 27 in Figure 2. A sheet of waxed paper 28 is placed on a cardboard or felt backing material 31 on the base-plate 14 of the foot-press 10, and the stamped fabric 26 is placed upon the waxed paper. By manipulating the foot-lever 19, the heated plunger and die are pressed against the fabric and against the waxed sheet of paper, the heated portion of the wax melting and being absorbed by the fabric and causing the fabric to be improved with an impressed figure 29, having a lustrous lacquer-like finish. The fabric 26 and the waxed paper 28 are then moved together to the next stamped mark and another figure impressed into the fabric. As shown in Figure 2, a complete design 30, has been impressed into the fabric 26 and a skeleton layout of a similar proposed design 27 has been stamped on the fabric, the first figure 29 of the proposed design 27 having been impressed into the fabric. It is obvious that a roll of fabric may thus be stamped with the proposed designs 27 all along its length or width and the entire roll then be improved with the finished designs 30. It is to be noted that while the triangular design 30 shown in Figure 2 has been formed by using an individual circular figure on the die 22 in step-by-step formation, that I can, by using a multiple-figure die, form the entire design 30 in one impression and by following the step-by-step method, form a plurality of triangular designs 30, each triangular design being formed complete in a single operation. The design 30 shown in Figure 2 of the drawing, is of course purely conventional, and for this design there may be substituted any other design which

it is desired to have impressed upon the textile fabric.

It is to be noted that the fibers subjected to the pressure by the die are pressed to the groundwork of the fabric and adhere thereto very firmly and form sharply defined depressions. The absorbed wax aids in setting the fabric into the design impressed thereon in substantially permanent form. The surface of the depressed figured portions of the fabric take on a lustrous or glossy lacquer-like effect which contrast greatly with the original fabric.

In its method aspect, the present invention provides for the ornamentation of sheet material, such as textile fabrics having interstices for the absorption of a foreign ingredient at successive points in accordance with a predetermined design. By my novel method I am able with the aid of a foreign ingredient to instantly produce substantially permanent figures in the fabric, the figures being spaced apart to form any desired ornamental design at the will of the operator and without in any way damaging the fabric or decreasing the original strength and luster of the fabric. It is obvious that, due to the step-by-step mode of operation non-uniform designs may also be impressed into the fabric at the will of the operator by using two dies each having a different figure and alternately impressing a different die.

While I have shown a conveniently manipulated foot-press wherein the plunger is heated by means of electrical resistance, it is to be understood that a hand-press may be used and that the same is susceptible of modifications by those skilled in the art without departing from the spirit of the invention as expressed in the appended claims. This press mechanism may be taken as representing any suitable means for performing the same function.

As shown in Figure 4, a figured impression 29 has been pressed into the fabric 26, the said impressed portion of the fabric being impregnated with the foreign wax ingredient.

Having thus described my invention, I claim:

1. The process of ornamenting woven fabrics, which consists in disposing the fabric against a waxed sheet with its normally exposed surface out of contact with said sheet and impressing an ornamenting figure in the fabric by means of a heated die contacting with said normally exposed surface of the fabric so as to cause the wax to fill the interstices in the depressed part of the fabric from the under surface thereof and produce a glossy finish contrasting with the remainder of the fabric.

2. The process of ornamenting woven fabrics, which consists in disposing the fabric against a waxed sheet with its normally exposed surface out of contact with said sheet, impressing an ornamenting figure in the fabric by means of a heated die contacting with the normally exposed surface of the fabric so as to cause the wax to fill the interstices in the depressed part of the fabric from the under surface thereof, and then shifting said fabric and sheet from the die and successively producing further ornamenting figures esthetically arranged with respect to each other.

ALFRED WOLFF.