

Nov. 8, 1932.

F. D. TAYLOR

1,886,846

PROCESS FOR PRODUCING DESIGNS AND PATTERNS

Filed Jan. 18, 1930

2 Sheets-Sheet 1

Fig. 1.

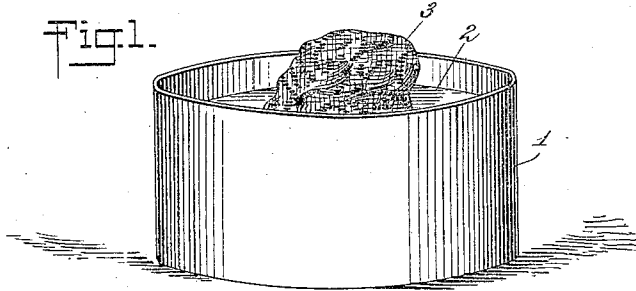


Fig. 2.

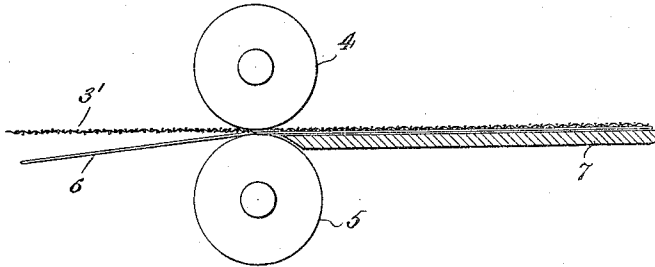


Fig. 3.

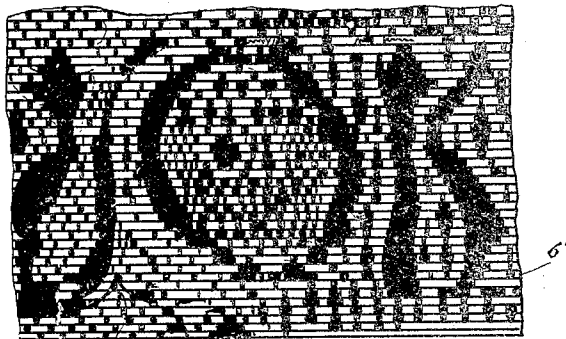
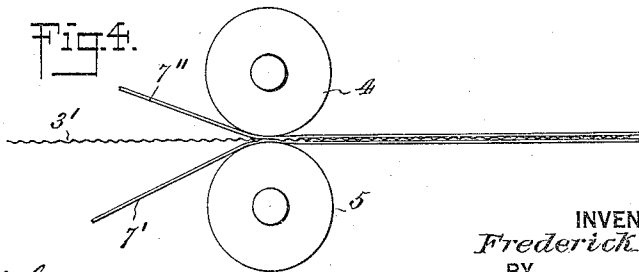


Fig. 4.



WITNESSES

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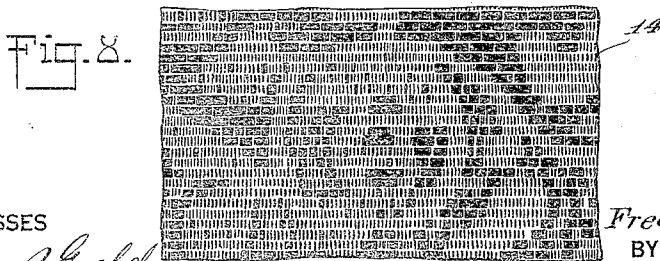
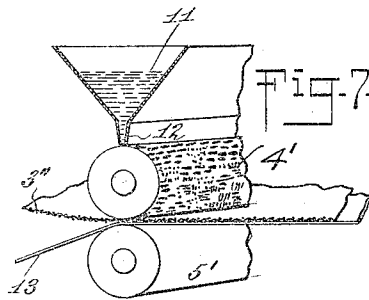
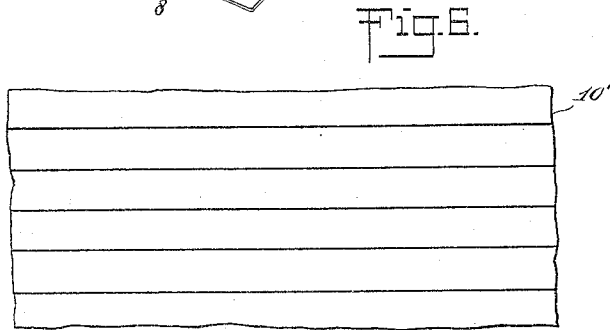
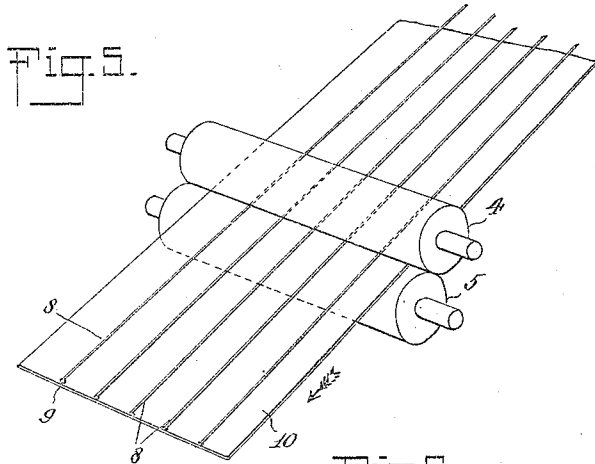
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PROCESS FOR PRODUCING DESIGNS AND PATTERNS

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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PROCESS FOR PRODUCING DESIGNS AND PATTERNS

Application filed January 18, 1930. Serial No. 421,716.

This invention relates to an improved process for producing designs and patterns on cloth or paper, the object being to provide a simple method whereby accurate and pleasing designs may be secured in an inexpensive manner.

Another object of the invention is to provide a method whereby lace, scrim, individual thread or other material may be used as a pattern and the design therefrom directly transferred to one or more sheets of paper or cloth.

In the accompanying drawings,—

Figure 1 is a perspective view of a vat containing a dye in a liquid state and a piece of lace partly submerged therein;

Figure 2 is a diagram partly in side elevation and partly in section showing how the lace illustrated in Figure 1 may be pressed against a piece of cloth or paper for transferring the pattern to the cloth or paper;

Figure 3 is a plan view of the finished printed piece of cloth or paper shown in Figure 2;

Figure 4 is a side view of a pair of pressing rollers and associated parts illustrating a slightly modified form of the process wherein a single piece of lace may be positioned to print a design on two pieces of paper or strips of cloth;

Figure 5 is a perspective view of an arrangement of pressing rollers and associated parts illustrating how threads carrying a dye may be used to print stripes on a piece of cloth or paper;

Figure 6 is a plan view of the sheet shown in Figure 5 after the same has been printed;

Figure 7 is a diagram partly in section showing how blotch rollers may be used for printing cloth or paper through a piece of lace or other pattern, whereby the openings in the lace or other pattern will permit the roller to print on the cloth or paper while the parts of the lace will prevent such printing, thus producing a negative of the lace design.

Figure 8 is a view of the finished material.

In carrying out the process or method different devices may be used and the same inventive results secured. Generally speaking, the process consists in using lace or some

other article as a pattern and either pressing dye from the lace or other pattern onto a surface, or pressing dye into the open spaces in the lace, so that the finished product will be either the design of the lace or other article or will be the negative thereof. In order that the exact details of the process may be more clearly understood, reference is had to the accompanying drawings, wherein 1 indicates a tank or receptacle carrying a quantity of liquid dye 2. This dye may be of any desired kind which is now on the market. A piece of lace 3 is submerged in this dye and after becoming fully saturated is removed, and the loose or surplus dye squeezed therefrom by any desired method. This leaves the lace moist and the fabric of the lace saturated with the dyestuff. The saturated lace 3' is then passed beneath pressing rollers 4 and 5 and at the same time a strip of cloth 6 is passed through the rollers 4 and 5 onto the platform 7. It will be understood that paper or other material could be used in place of the fabric or cloth 6 and whenever the term "fabric" or "cloth" is used it will be understood that paper or other material may be substituted. It is also understood that instead of lace, scrim or open-work material of any kind may be used in the same way. As the cloth or fabric 6 and the saturated lace 3' passes between the rollers 4 and 5 some of the dye in the lace will be forced into the fabric so that the finished piece of fabric 6' will be as shown in Figure 3. This will have a perfect copy of the lace design printed thereon. If a second print is desired the lace is again submerged in the dyestuff 2, the excess dyestuff squeezed out and then forced between rollers 4 and 5 in a second operation. The same piece of lace may be used a great many times without departing from the spirit of the invention. Where large quantities of design are desired instead of having one piece of fabric 6, as shown in Figure 2, two pieces of fabric 7 and 7' may be forced between the rollers 4 and 5 and a single piece of lace 3' fitted therebetween, as shown in Figure 4.

Where straight lines are desired instead of floral designs threads or cords 8 are used, as shown in Figure 5, instead of lace, as shown

in Figures 2 and 4. The threads or cords 8 are secured at 9 by adhesive or other means to one end of the cloth 10 on which the printing is to be done. These threads are previously dyed as described in respect to the lace 3. While in a moist condition they are secured at points 9 and then the entire assemblage passed between the squeezing rollers 4 and 5, whereupon dye will be passed from the threads onto the cloth 10 and the finished product will be a piece of striped goods, as shown in Figure 6. It will be understood that after the pressing operation the threads 8 are removed. It will be understood that the dye in these threads will not smear by resting on the fabric but will transfer the dye only when appreciable pressure is brought to bear on the threads.

Under some circumstances instead of pressing dye from the threads or from a piece of lace, it is desired to apply dye in the openings of the lace or in the openings between the threads 8. When this is the case a supply of dyestuff 11 is provided and fed through a suitable member 12 to a blotch roller 4', said blotch roller coacting with a presser roller 5'. A strip of lace or other pattern material 3'' in a dry state is forced between the rollers 4' and 5' and at the same time a strip of cloth 13 is forced between these rollers. Roller 4' is covered with a thin layer of dyestuff and this is pressed against the lace 3'', and in fact, the pressure is so great that the dyestuff on the roller will be pressed into the cloth 13, except where the threads of the lace 3'' are contacting therewith. The result is a finished printed strip of fabric 14 showing the designs of the lace in white or whatever the original color of fabric 13 may be. The openings between the lace are naturally the color of the dye 11. Other modified adaptations of the process may be had without departing from the spirit of the invention, but in all the different forms or modified applications some form of pattern must be used which may be lace, threads or other formations, and this pattern may be either dry or wet. Under some circumstances the presser roller 4' may be engraved, whereby only the engraved part will print and consequently the resulting, finished product will be a combination of a lace pattern and the engraved part of the roller. It will, therefore, be seen that by this process the same is adapted to produce designs and patterns in one or more colors of any description upon any textile fabric or paper of any description with the use of lace of any length, width or weave and of any design or pattern, first by pressing one or more dyestuffs, colors or chemicals of any description through openwork lace, to a textile fabric or paper of any description, and second, by pressing lace of any length, width or weave of any design and pattern which has been saturated in one or more dyestuffs, colors or

chemicals of any description, against a textile fabric or paper or between two textile fabrics or papers of any description.

What I claim is:—

1. The process of printing fabric, consisting in applying a lace or other pattern to a piece of fabric and then passing an inked engraved printing roller over the lace so that the colored matter on the roller will contact with the fabric in the open spaces of the lace.

2. The process of printing fabric consisting in applying lace or other pattern to a piece of fabric and then passing an engraved blotch printing roller over the lace so that the colored matter on the raised parts of the roller will contact with the fabric in the open spaces of the lace while leaving the fabric unprinted where the depressions occur in the printing roller.

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