Sept. 1, 1936. N. LOUFT 2,052,933

SILK SCREEN PROCESS PRINTING

Filed July 20, 1934

Fig. 1.

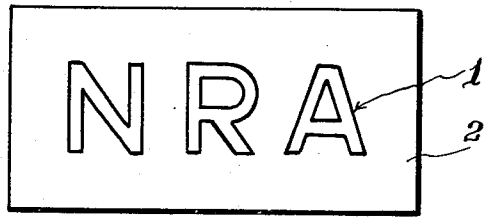


Fig. 2.

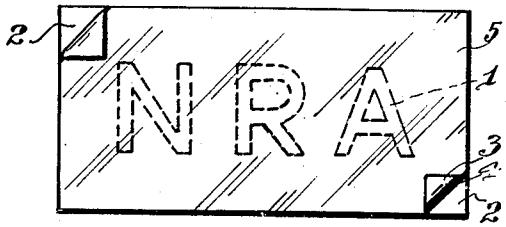


Fig. 3.

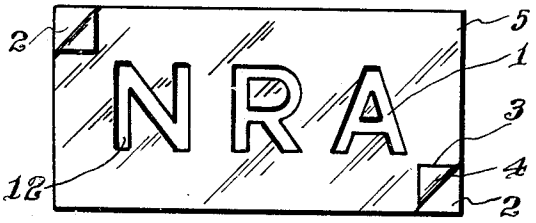


Fig. 4.

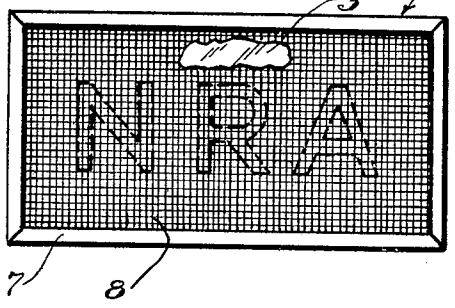


Fig. 5.

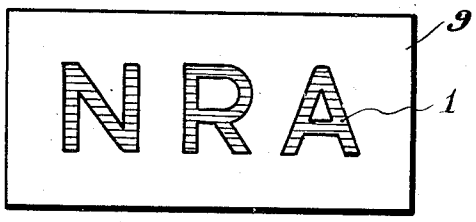


Fig. 6.

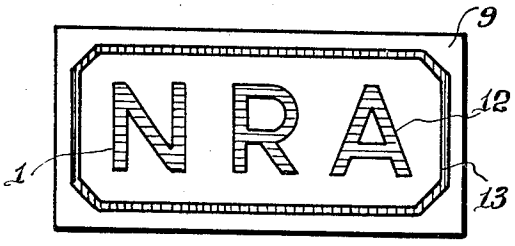


Fig. 7.

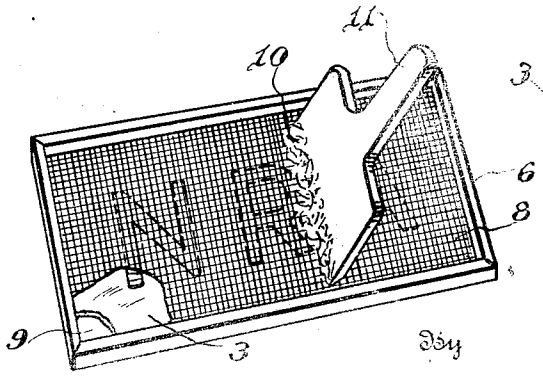
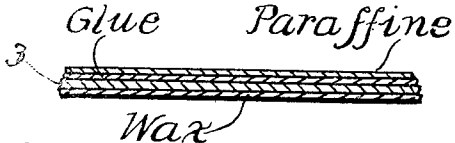


Fig. 8.



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SILK SCREEN PROCESS PRINTING

Nathan Louft, Washington, D. C.

Application July 20, 1934, Serial No. 736,270

3 Claims. (Cl. 41—38.5)

This invention relates to the art of sign making and more particularly to silk screen process printing.

The main object of the invention is to provide a stencil device for producing signs of one or more colors uniformly, accurately, quickly and at a low cost.

Another object of the invention is to generally improve and simplify the present method of producing signs, to provide a means whereby a picture, design or lettering containing one or more colors may be delineated or reproduced on a semi-smooth or rough surface, such as paper, card-board and the like, by forcing the color through a stencil, portions of which are temporarily or permanently marked out as the successive colors are applied.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that within the scope of what is claimed, changes in the precise embodiment of the invention shown can be made without departing from the spirit of the invention.

The method of making signs according to this invention, in brief, consists of drawing the sign on a sheet of card-board or the like, temporarily pasting a transparent sheet of paper over said sheet of card-board, cutting out in outline with a sharp tool the portions of the transparent paper which overlay the sign and forming a stencil, transferring the stencilled out transparent paper to the underside of a silk screen and then using the screen to make the signs by placing the screen over the sign backing and forcing the paint through said screen, through the openings of the stencil onto said sign backing and forming the sign.

In the drawing is shown one form of stencil apparatus illustrating the invention together with the method of using the device in the production of the signs but it will be understood that this embodiment of the invention has been selected for the purpose of illustration only and that the stencil sheet may take various forms.

In the accompanying drawing:

Figure 1 is a view of the sign in outline drawn on a sheet of card-board.

Figure 2 shows the sign covered with a sheet of transparent paper.

Figure 3 shows the transparent paper stencilled out around the outline of the sign lettering.

Figure 4 shows the stencilled out transparent paper attached to the underside of a silk screen.

Figure 5 shows the finished sign.

Figure 6 is a similar view of Figure 5 but showing a two color sign consisting of the letters N R A and the outside border of contrasting colors.

Figure 7 is a perspective view showing the method of applying the paint to the screen.

Figure 8 is a sectional view of the stencil paper.

Referring to the drawing in detail, the first step in the process consists of drawing the sign 1 in outline, which is shown here as comprising the letters N R A on a sheet of stiff backing 2 of any suitable material. The next step is to temporarily paste a sheet of transparent paper 3 over the backing 2. The said sheet is coated on the side 4 with wax and on the opposite side 5 with a coat of glue and then with another coat, said coat being paraffine. As noted in Figure 3 the side which is coated with wax is in contact with the backing 2. The transparent sheet can easily be attached to the backing by going over the sheet with a lukewarm flat iron or the use of pressure.

The following step in the process is to cut out with a sharp instrument the letters N R A in outline from the transparent sheet and removing the cut out portions, care of course being taken not to cut deeply in the backing. The transparent sheet will thus become a stencil. The purpose of covering the glued coating of the paper 3 with another coating of paraffine is to prevent the paper from sticking to the fingers. The paraffine acts as a sort of insulator and prevents the glue from adhering to the fingers when cutting the stencil.

The next step is to place the stiff backing with the stencilled sheet 3 attached underneath a screen 6 and transferring the sheet from the backing to the said screen. This is done by wetting the screen and going over it with a relatively hot flat iron. As stated above the upper side 5 of the sheet is coated with glue and paraffine and it is this side which comes in contact with the screen. The heat from the flat iron will melt the wax coating which holds the said sheet to the backing, and at the same time the glue and the paraffine on the paper face of the sheet will melt together forming an adhesive compound and cause the sheet to adhere to the underside of the screen so that when the screen is lifted from the backing the stencilled sheet will be transferred in its entirety to the screen and in the same relation it was when attached to the backing. The screen ordinarily comprises a rectangular frame 7 over which is stretched a sheet of fine mesh fabric, preferably silk, as shown at 8.

The last step in the process consists of placing the screen with the stencilled sheet underneath over the sign backing 9 on which will appear the finished sign, pouring the paint 10 over the screen as shown in Figure 7 and with a squeege 11 forcing the paint through the openings 12 in the stencilled sheet 3 through the mesh of the screen onto the backing 9. It is obvious that where the stencilled sheet is solid the paint will not come in contact with the sign backing but only through the openings 12 of the stencilled sheet. The result is that the finished sign comprising the letters N R A will appear in solid color in outline exactly as the original letters N R A appearing on the backing 2 shown in Figure 1.

If it is desired to make a two colored sign as for instance by adding a border 13 of another color a stencil of the border is made in the same way as the original sign and same process practiced.

It will thus be seen that I have provided a method of producing signs in large or small quantities of one or more colors uniformly, accurately, quickly and at a low cost. The screen can be used over and over again by simply soaking the screen in water and peeling off the old stencil and attaching a new one.

Having described my invention, I claim:

1. A paper for forming a stencil made from a transparent paper base and coated on one side with wax and on the opposite side with a coat of glue and then another coat, said last mentioned coat being paraffine.

2. A paper for forming a stencil coated on one side with wax and on the opposite side with a coat of glue and then another coat, said last mentioned coat being paraffine.

3. A paper for forming a stencil made from a transparent paper base, said transparent base having one coating on one side and a double coating on the opposite side, the first mentioned coating comprising wax and the second mentioned coatings comprising paraffine and glue, paraffine being the top coating.

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