July 2, 1935. F. R. McCORD 2,007,056

METHOD OF MAKING STENCILS

Filed Oct. 31, 1931

Fig. 1.

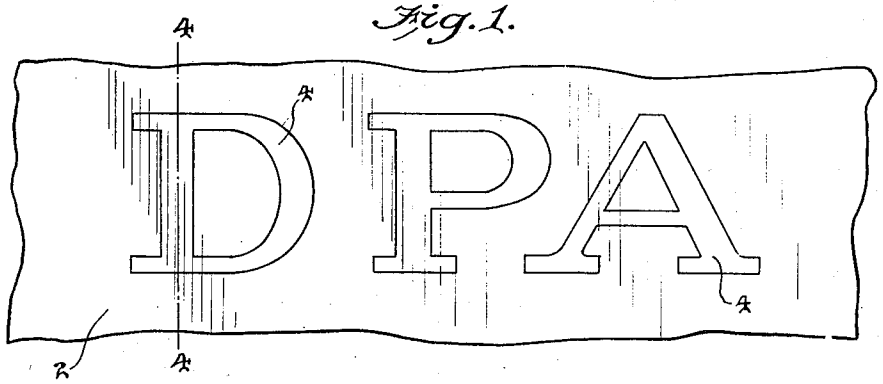



Fig. 2.

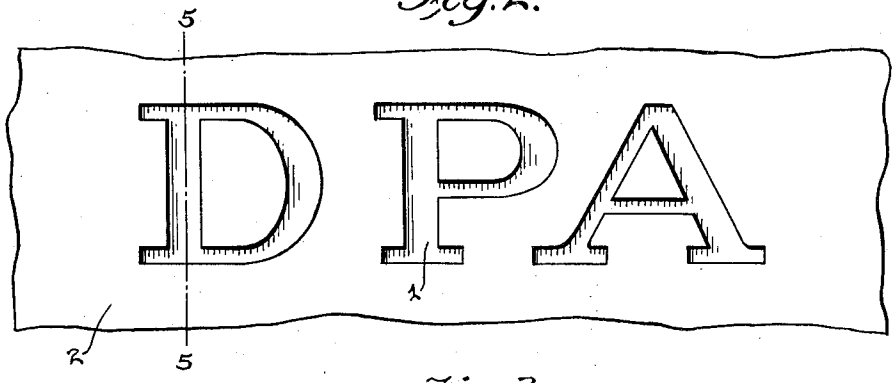



Fig. 3.

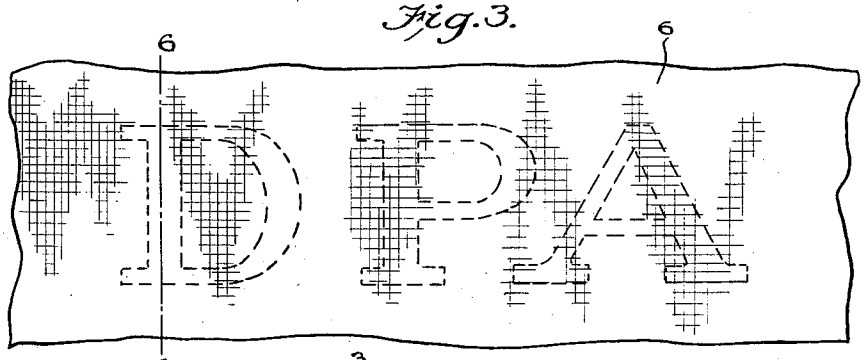



Fig. 4.




Fig. 5.

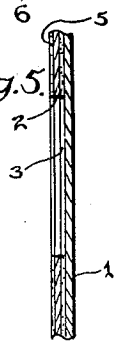
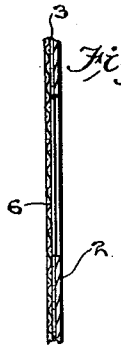



Fig. 6.




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# UNITED STATES PATENT OFFICE

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## METHOD OF MAKING STENCILS

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Application October 31, 1931, Serial No. 572,403

1 Claim. (Cl. 41—38.5)

The present invention relates to certain new and useful improvements in methods of making stencils used in placing lacquer pastes and lacquer colors as well as oil and other colors in the form of letters and other color decorative designs on wood, metal, cardboard, cloth and various other materials.

The object of the present invention is to enable a stencil of this character to be more easily and accurately made and at a lower cost than heretofore.

The present method employs duplex or double paper. Duplex or double paper consists of two sheets of paper, one of medium thickness serving as a backing sheet and another sheet of thin paper superimposed or pasted upon the backing sheet with a thin solution of gelatin and water, gum tragacanth and water or other adhesive with just enough adhesion to cause the thin paper to adhere firmly to the backing sheet, but at the same time, permitting the same to be easily removed from the superimposed sheet after a stencil has been cut therein.

Duplex paper may be made from transparent or semi-transparent paper or duplex paper may be treated with a solution to cause the same to be of such transparent or semi-transparent color so that when the duplex paper is placed over upon the design to be reproduced the colors or outline will be visible through the duplex paper and will enable the thin superimposed sheet to be readily cut to form a stencil having the said design to be reproduced.

To prepare duplex paper for lacquer stencils a coating of gum arabic, glue or dextrine or other suitable binder, is coated over the thin paper and allowed to become dry. Those portions of the design which are of one color are cut out of the thin paper and removed from the backing sheet to form a stencil. The backing sheet is not cut through, but forms a continuous support for the parts of the thin superimposed sheet not cut away and holds the said parts in their relative positions until they are secured on the screen, as hereinafter fully explained.

The stencil sheet with the parts cut away to provide openings corresponding to the selected portions of the design is placed over the said screen which is ordinarily composed of a sheet of silk, organdie or other suitable fabric stretched over a frame. The organdie or silk is moistened with water and coming in contact with the gum or glue of the stencil will cause the thin paper to adhere to the screen.

The screen may be pressed and dried with a warm iron if desired. The backing sheet is then removed, leaving the thin paper stencil attached to the screen. After the desired number of designs have been stenciled the thin paper may be easily removed from the screen with water and the screen is then ready for another stencil or color of the said design or for other designs.

A stencil prepared with the gum arabic dextrine binder may be used in stenciling oil and varnish paints as well as lacquer pastes and colors. The adhesive may be applied to the thin superimposed sheet either before or after the stencil is cut.

With these and other objects in view, the invention consists in the construction and novel combination and arrangement of parts hereinafter described, illustrated in the accompanying drawing, and set forth in the claim hereto appended, it being understood that various changes in the form, proportion, and minor details of construction, within the scope of the claim, may be resorted to without departing from the spirit of the invention or sacrificing any of the advantages thereof.

In the drawing:

Figure 1 is a plan view of a portion of a stencil before the cutout portions of the thin superimposed sheet are removed.

Fig. 2 is a similar view showing the stencil after the cutout portions have been removed.

Fig. 3 is a plan view of a portion of the screen after the stencil has been applied thereto and the backing sheet removed from the superimposed stencil sheet.

Fig. 4 is an enlarged detail sectional view on the line 4—4 of Fig. 1.

Fig. 5 is a similar view on the line 5—5 of Fig. 2.

Fig. 6 is an enlarged detail sectional view on the line 6—6 of Fig. 3.

Referring to the drawing, 1 designates the backing sheet and 2 the thin superimposed stencil receiving sheet, a layer or coating of the adhesive being interposed between the sheets as indicated at 3 for lightly and firmly securing the thin superimposed sheet. The design, by way of example in the accompanying drawing, is shown in the form of letters 4, which are cut out of the thin superimposed sheet 2 and as illustrated in Figs. 2 and 5 of the drawing, the cutout portions are then removed.

The adhesive coating which is applied to the exterior surface of the thin stencil sheet for attaching the same to the screen, is indicated at 5 in Fig. 5 of the drawing. After the stencil is cut it is applied to the screen 6 and the back-

ing sheet 4 is removed, leaving the screen with the stencil sheet thereon, as clearly illustrated in Fig. 6 of the drawing. Only a portion of the screen and stencil is illustrated in the drawing for convenience, and in practice, the screen 6 will be stretched over a rectangular or other shaped frame in the usual manner. In Fig. 6 of the drawing the screen 6, the stencil 2 and the layer or coating 3 of adhesive material, are shown. The stencil of the present invention employing the thin superimposed paper instead of a film, as heretofore, may be successfully used on a screen of cheaper material other than silk, such as organdie. The duplex paper with the backing sheet enables thinner paper to be employed as a stencil than is possible if the stencil paper is cut without a backing sheet and a thinner stencil sheet enables the placing of a thinner coat of paint or color on the design. The backing sheet of the duplex paper supports the thin stencil sheet while it is being cut and holds the cut portions in proper position until the stencil sheet is secured to the screen and is supported thereby.

Instead of employing a gum solution as a binder, either lacquer or shellac or any other suitable adhesive may be employed to cause the thin paper to adhere to the screen.

What is claimed is:

The method of making a stencil of the character described which consists in superimposing a thin sheet of preformed flexible dry transparent or semi-transparent paper upon a heavier supporting backing sheet of transparent or semi-transparent paper, firmly and lightly securing the sheets of paper together by an adhesive, simultaneously arranging both the thin sheet of paper and the thicker backing sheet of paper upon the design of which the stencil is to be made, applying a coat of adhesive to the outer surface of the thin sheet of paper, cutting a stencil of the said design from the thin superimposed paper sheet without cutting the paper backing sheet, arranging a moistened screen on the adhesive surface of the thin sheet while the cut portions thereof are supported and maintained in proper position by the backing sheet, applying a warm iron to the screen to cause the stencil to adhere to the screen and to dry the latter, and finally removing the backing sheet from the stencil and the screen.

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