Sept. 25, 1962 F. W. MACKENZIE 3,055,787

APPLICATION OF TYPOGRAPHIC AND OTHER DESIGNS TO SHOWCARDS, AND OTHER ARTICLES

Filed Aug. 6, 1957

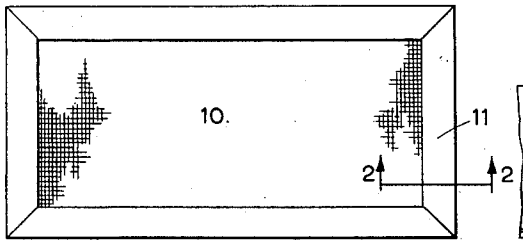

FIG. 1.

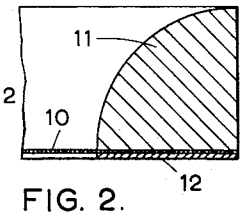

FIG. 2.

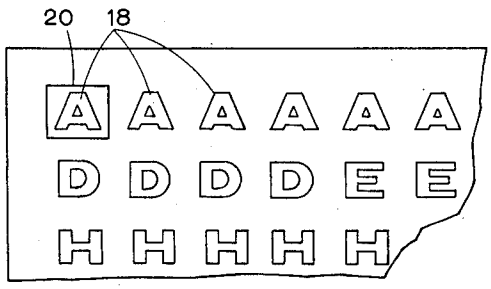

FIG. 3.

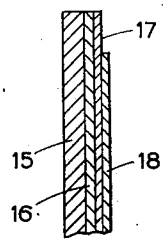

FIG. 4.

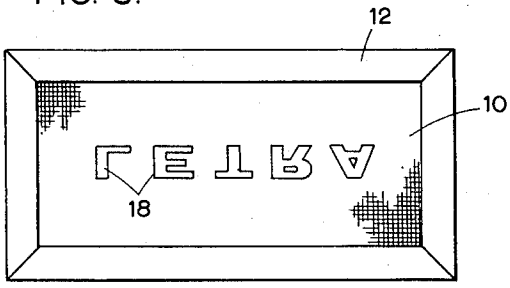

FIG. 5.

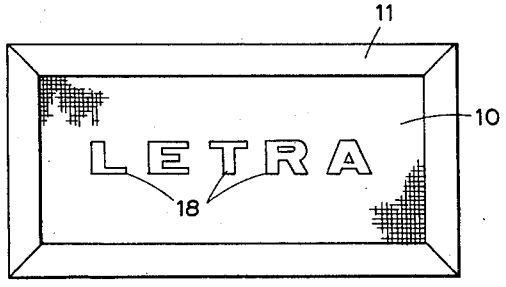

FIG. 6.

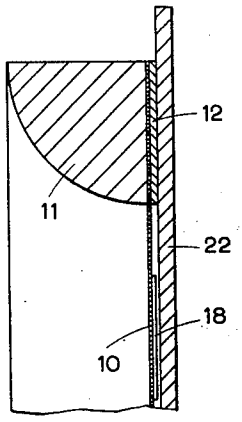

FIG. 7.

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APPLICATION OF TYPOGRAHIC AND OTHER DESIGNS TO SHOWCARDS, AND OTHER ARTICLES

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1 Claim. (Cl. 156—235)

This invention relates to the application of typographic or other designs, to showcards and other articles using letters, designs or the like transferred thereto by means of printed "slide off" transfers or other transfers. Slide off transfers as commonly used consist of a paper backing sheet on which the letters or other designs are attached by means of a carrier film to which the designs are immovably fixed, said carrier film being attached to the backing sheet by an adhesive soluble in water so that by wetting the transfers the carrier film with the designs thereon can be removed. Heretofore it has been the practice to wet the transfer before placing it on the article and to use sufficient water to enable the film and design to be floated off the transfer directly on to the article. This has many disadvantages; including the difficulty of maintaining the alignment of individual typographic characters, and the need of a carrier film which detracts from aesthetic appearance of the final result.

According to the present invention a method of making transfer printed articles comprises placing a transfer sheet with the design thereon in contact with a non-occlusive temporary support, said transfer sheet having a backing sheet and a printed design attached by an adhesive to the backing sheet, removing the backing sheet and leaving the printed design on one side of the non-occlusive support in reversed position, applying the latter to the article to be printed and pressing the design on said article in its required position.

It is important that the temporary support should be of a non-occlusive nature, that is to say it does not completely occlude air or water from entering between it and the design thereon as this would militate against easy removal of the design from the support to the article. Thus a smooth metal or class surface is undesirable. Preferably the support is a fine screen of silk or like fine filaments preferably but not essentially non-metallic. However, the support may have a solid continuous surface, e.g. a metal or synthetic plastic sheet if rendered non-occlusive by embossing or other suitable treatment of the surface. The design can cling to the support so that it can be easily handled and positioned on the article whereupon the design can be pressed on to the article and the design will readily part from the support and cling to the article because of the relatively smaller surface area presented by the non-occlusive nature of the surface of the temporary support.

The temporary support is preferably mounted in a rigid frame.

The invention will be further described by way of example with reference to the accompanying diagrammatic drawings wherein:

FIGURE 1 is a plan view of a temporary support mounted in a rigid frame;

FIGURE 2 is a section on an enlarged scale on the line 2—2 on FIGURE 1;

FIGURE 3 shows a transfer;

FIGURE 4 is a sectional view of part of the transfer;

FIGURES 5 and 6 are views of opposite sides of the temporary support and frame; and

FIGURE 7 is a sectional view similar to FIGURE 2 but showing the design and the article.

The temporary support **10** is a fine screen which has its margins clamped between a rigid rectangular wooden main frame **11** and a thin wooden spacing frame **12**. The main frame has a depth of one quarter to three quarters of an inch so that it is strong and easily handled without being too deep as this would lessen the facility of manipulation. The spacing frame **12** has a depth of 0.05 to 0.15 inch and is fixed to the main frame with a waterproof adhesive.

The transfer as shown in FIGURES 3 and 4 consists of a paper backing sheet **15**, a thin film **16**, a film of water-soluble adhesive **17**, and the letters or other designs **18**. These are all very thin and are only shown of considerable thickness in FIGURE 4 for convenience of drawing. It is quite well known in the art to provide a film **16** of the kind which can be readily peeled off from the backing sheet and when dipped in water permits the water to dissolve the adhesive **17** between the film **16** and the letter **18**.

In use a piece of the film **16** is cut as at **20** with the required letter **18** thereon. This piece is peeled off from the backing sheet and moistened with water and applied to the underneath side of the support **10**. The film is floated off and removed leaving the letter **18** on the support **10** in reversed position as shown in FIGURE 5. Now the frame and support **10** are turned so that the letter **18** is below the support **10**.

The letter **18** remains adhered to the support **10** by means of the water. The exposed side of the letter remote from the support **10** is, at this time, coated with a solution of the adhesive **17** in water.

The use of a fine mesh screen permits the worker to see the letter **18** which appears to him in correct position. The worker can now handle this frame with dry hands, place it in position and even fix it in position, upon the article shown at **22** in FIGURE 7 so that the letter **18** is between the support **10** and the article **22**. The worker now presses the letter through the support **10** so as to establish contact of the letter **18** on the article **22**. On removing pressure the support **10** springs up leaving the letter **18** exactly positioned on the article. The use of the spacing frame **12** of 0.05 to 0.15 inch depth enables the worker to position the letter **18** exactly above the article **22**, and to flex the support **10** without damage to the support.

The screen may be made of silk, cotton or other natural fibres, synthetic or metallic filaments, perforated or embossed materials, plastic or the like.

I claim:

A method of assembling a composite design on a receiving surface comprising providing a plurality of individual pieces of a transfer sheet and a non-occlusive flexible screen, one surface of said screen serving as manipulating surface and as transfer surface, each sheet carrying a disconnected printed portion of said composite design removably adhesively joined to a backing film by means of a watersoluble adhesive, said screen being flexibly supported in a rigid frame with the transfer surface and the lower surface of said pieces spaced from said receiving surface

when said frame and screen are placed thereon, placing said pieces on the transfer surface of the screen with the printed design against the screen,

(*a*) moistening the backing of said pieces, stripping off the moistened backing from the print remaining on the screen, placing the screen above the receiving surface,

(*b*) inverting the screen,

(*c*) flexing and pressing the portion of the screen carrying said print against the receiving surface, thereby transferring the print thereon,

(*d*) adjusting the screen and another of said pieces over the receiving surface so as to place said piece in a position required for assembling the composite design,

(*e*) and repeating steps (*b*), (*c*), and (*d*), until the design is completed on the receiving surface.

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