

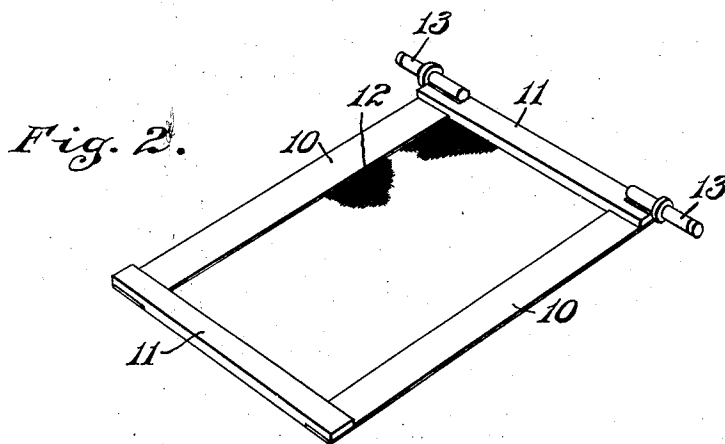
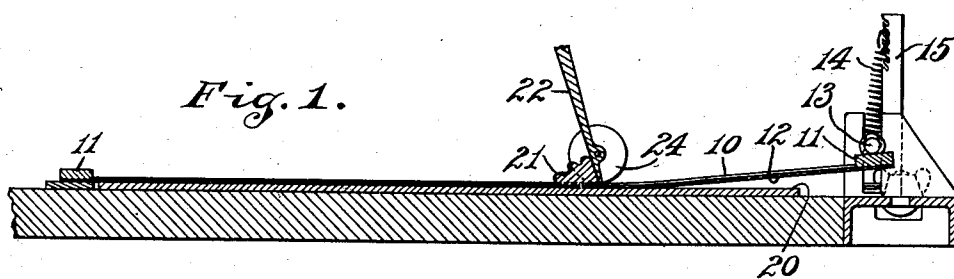
Oct. 29, 1935.

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2,018,989

APPARATUS FOR APPLYING PIGMENTS TO SURFACES

Filed April 16, 1934



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UNITED STATES PATENT OFFICE

2,018,989

APPARATUS FOR APPLYING PIGMENTS TO SURFACES

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Application April 16, 1934, Serial No. 720,693

2 Claims. (Cl. 101—126)

The object of my invention is to provide improved means for applying patterned colors to surfaces. My improvements relate particularly to the application of frits to enameled sheet metal surfaces but are not limited to that field.

The invention resides in an improved screen stencil wherein the screen frame is effectively resilient transversely of the plane of the screen.

The accompanying drawing illustrates my invention.

Fig. 1 is a vertical section of my improved screen supported in operative position over a receiving plate and flexed as in use; and

Fig. 2 a perspective, on a smaller scale, of the screen.

In the drawing 10, 10 indicate the side bars and 11, 11 the end bars of a screen frame to which the stencil screen 12 is secured.

The side bars 10, 10 are made of highly resilient material and are relatively thin so as to be readily flexed transversely of their thickness, but are sufficiently wide to be rigid against stresses widthwise.

The end bars are preferably reasonably rigid transversely of their thickness.

The screen 12 is stretched tightly across and secured at its edges to the frame and this screen is preferably of metal wire and fine mesh, in which case it is soldered or brazed to metal frame bars.

One end bar 11 is provided with means, such as pins 13, 13, to which frame supporting springs 14, 14 may be attached, said pins also serving as frame anchors by projecting into vertically slotted brackets 15, 15 upon which springs 14 are suspended.

The screen 12 may be photographically sensitized, exposed, developed and washed into a desired stencil or blocking elements applied thereto in any well known manner to form a desired stencil.

When so prepared it is placed over the plate

20, to which ink or frit is to be applied, with one end suspended by springs 14 and the other end so supported that, when the spring-supported end is depressed the screen may be brought to close parallelism with plate 20.

Ink or frit 21 being applied to the upper face of the screen near its spring-supported end, a squeegee 22, pressed downwardly and drawn toward the other end of the screen, serves to propel the ink or frit across the screen and through its permeable portions onto plate 20.

In order that the screen 12 may have a long life it is desirable that distortion from the plane of the frame be avoided as much as possible and therefore squeegee 22 is provided at each end with a shoe or roller 24 which will engage the side bars 11 in the line of the squeegee and serve to flex said bars progressively against the action of springs 14. Consequently, as the squeegee progresses away from the spring supported end of the frame said end is raised higher and higher away from the plane of plate 20 thus stripping the screen away from the applied ink immediately back of the squeegee so as to leave a sharply-defined deposit of ink.

If the frame is sufficiently long relative to a medial placed permeable portion of the screen both ends of the frame may be vertically fixed and the flexibility of the side bars depended upon to produce the proper stripping action.

I claim as my invention:

1. A screen stencil comprising a screen and a supporting frame, two opposite sides of said frame being substantially resilient to stresses normal to the plane of the screen.

2. A stencil of the character specified in claim 1 arranged above a receiving surface and supported at one end by yielding means normally acting to raise said end away from the receiving surface.

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