April 23, 1957 F. J. VERDERBER 2,789,299

FOUNTAIN SQUEEGEE

Filed Aug. 13, 1954

FIG. 1

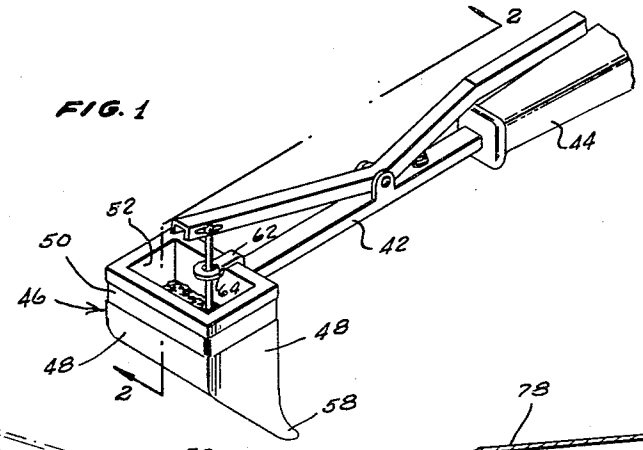


FIG 2

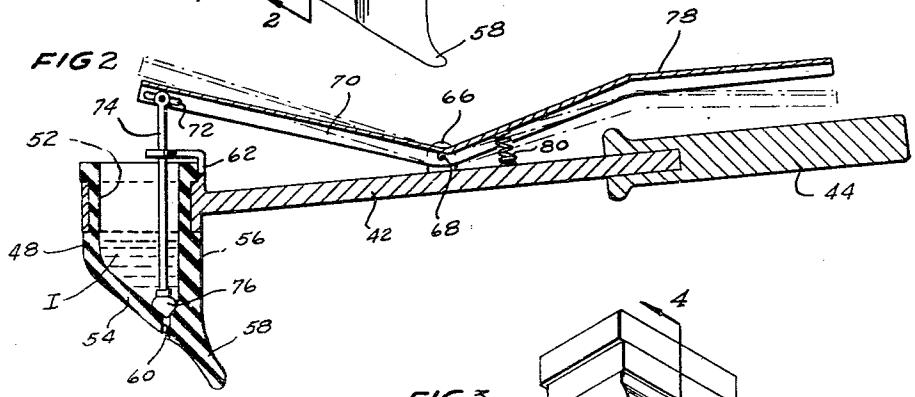


FIG. 3

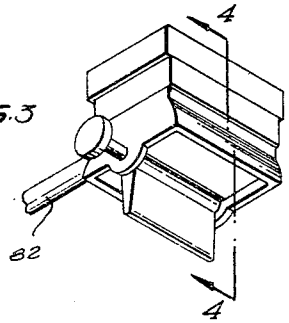


FIG. 5

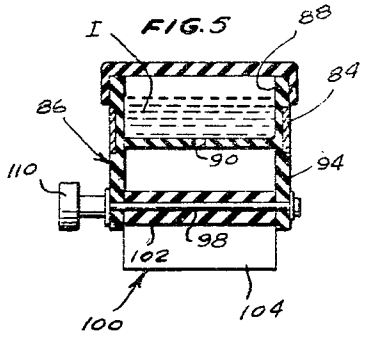
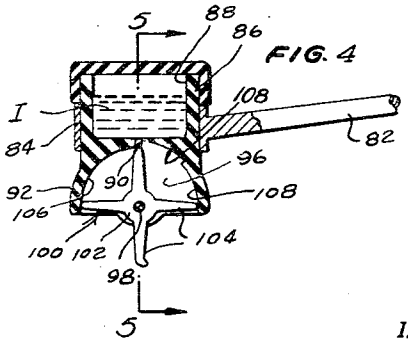


FIG. 4



INVENTOR.

FRANK J. VERDERBER

BY

McMorrow, Berman & Davidson

ATTORNEYS

United States Patent Office 2,789,299 Patented Apr. 23, 1957

2,789,299

FOUNTAIN SQUEEGEE

Frank J. Verderber, Ridgewood, N. Y.

Application August 13, 1954, Serial No. 449,681

2 Claims. (Cl. 15—131)

This invention relates to a squeegee and has for its primary object to force ink through a stencil by a single stroke of the squeegee across the upper side of the stencil.

Another object is to supply ink to the stencil surface during the passage of the squeegee therealong.

Still another object is to regulate the flow of ink onto the stencil surface.

Other features and advantages of the invention will become apparent from the following description taken in conjunction with the accompanying drawings, in which:

Figure 1 is a perspective view of one form of applicator;

Figure 2 is a longitudinal sectional view taken substantially on the line 2—2 of Figure 1;

Figure 3 is a fragmentary perspective view of the underside of the preferred form of the invention;

Figure 4 is a sectional view taken substantially on the line 4—4 of Figure 3; and

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 4.

Referring to the drawings and to the form of applicator illustrated in Figures 1 and 2, a shank 42 is provided at one end with a handle 44 and carries at its opposite end a squeegee head designated generally 46. This head comprises a hollow body 48 which is encircled by a band 50 carried by the shank 42 and said body defines an ink reservoir or chamber 52 in which ink I is contained. The head 48 is provided with a downwardly and rearwardly inclined bottom wall 54, and carried by the body 48 and projecting downwardly therefrom adjacent the junction of the bottom 54 and the back wall 56 thereof is a blade 58. Formed in the bottom wall 54 adjacent its junction with the back wall 56 and slightly in advance of the blade 58 is an ink discharge passage 60 through which ink from the reservoir 52 will flow downwardly and onto the blade 58. It is to be understood, of course, that the body 48 and blade 58 are formed integrally of a resilient flexible material.

Carried by the shank 42 adjacent the head 46 is a bracket 62 having a guide opening 64 extending therethrough and pivotally mounted on spaced ears 66 carried by the shank 42 intermediate the end thereof for rocking movement about a pivot shaft 68 which lies parallel to the head 46 is a rock lever 70 to which is connected by a pin and slot connection 72 a plunger 74 which extends through the opening 64 and carries at its end remote from the lever 70 a valve head 76 which, as illustrated in Figure 2, aligns with the discharge opening 60 and when the lever 70 is in the position illustrated in Figure 2 has closing relation with said opening. A handle 78 is carried by the lever 70 and projects over the handle 44 so as to be within easy reach of the user. A compression coil spring 80 is engaged with the shank 42 and bears against the handle 78 to hold the valve 76 in closing relation to the ink discharge passage 60.

In use, it will be evident that by depressing the handle 78 against the effort of the spring 80, the valve 76 will be lifted from engagement with the bottom wall of the chamber 42 to permit ink I to flow downwardly through

the discharge passage 60 and onto the blade 58 so that when the blade is passed across a stencil, ink carried thereby will be extruded through the stencil and onto the work supported below the stencil. In this way, it will be evident that the supply of ink to the blade 58 is directly under the control of the user at all times.

In the form of the invention illustrated in Figures 3, 4 and 5, and which form is the preferred one, a shank 82 carries at one end a loop 84 in which is seated a reservoir designated generally 86 in which ink I is housed. The reservoir 86 may be constructed of resilient deformable material and is provided with a chamber 88 having a discharge opening 90 extending through the bottom thereof. Carried by the reservoir 86 and extending downwardly therefrom adjacent opposite longitudinal side edges thereof are arcuate skirts 92 and end walls 94 which define a chamber 96 which is only open at its bottom.

Mounted on a suitable shaft 98 which extends through the end walls 94 is a rotor designated generally 100 comprising a hub portion 102 and radial blades 104 which have wiping contact with the portion 106 of the wall defining the chamber 96 while the portion 108 of said wall is spaced from the arcuate path of the outer edges of the blades 104 to afford clearance for the blades 104 as they approach the discharge opening 90. A knob 110 is carried by the shaft 98 and projects longitudinally from one end of the reservoir to facilitate the rotation of the rotor 100. The rotor 100 is formed of a suitable resilient deformable material so that the blades may bend, as suggested in Figure 9, when they are in contact with a stencil.

In use, it will be evident that ink I in the reservoir 86 will flow downwardly through the opening 90 and onto the adjacent blades so that when the ink on the blade which extends vertically downwardly becomes exhausted, the knob 110 may be turned to present a downwardly extending freshly inked blade. In this way, a fresh supply of ink may be supplied to a stencil in a continuous manner.

While in the foregoing there has been shown and described the preferred embodiment of this invention, it is to be understood that minor changes in the details of construction, combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as claimed.

What is claimed is:

1. A fountain squeegee comprising an elongated handle, a hollow head of resilient deformable material carried by the handle and extending transversely thereacross adjacent one end thereof, a skirt carried by the head and extending downwardly therefrom to define beneath the head a substantially semicylindrical chamber having an open bottom and a horizontal longitudinal axis, said head having an ink discharge opening extending therethrough and communicating with the chamber, a rotor mounted in the chamber for rotation about the longitudinal axis thereof, and squeegee blades of resilient deformable material extending lengthwise of and radially from said rotor, said blades passing into wiping contact with a chamber wall portion surrounding said discharge opening upon progressive rotor rotation, whereby successive fluid trap chambers are formed between adjacent blades as they advance under said discharge opening, thus insuring a fresh metered supply of fluid on the forward face of each blade upon being successively rotated into work engaging position below said chamber.

2. A fountain squeegee comprising an elongated handle, a hollow head of resilient deformable material carried by the handle and extending transversely thereacross adjacent one end thereof, a skirt carried by the head and extending downwardly therefrom to define beneath the head a substantially semicylindrical chamber having an open bottom and a horizontal longitudinal axis, said head

having an ink discharge opening extending therethrough and communicating with the chamber, a rotor mounted in the chamber for rotation about the longitudinal axis thereof, squeegee blades of resilient deformable material extending lengthwise of and radially from said rotor, said blades passing into wiping contact with a chamber wall portion surrounding said discharge opening upon progressive rotor rotation, whereby successive fluid trap chambers are formed between adjacent blades as they advance under said discharge opening, thus insuring a fresh metered supply of fluid on the forward face of each blade upon being successively rotated into work engaging position below said chamber, and the ink discharge opening

extending through the head to one side of a vertical plane extending through the axis of the rotor, and the portion of the wall of the chamber on the opposite side of said plane being relieved to avoid wiping contact with the blades.

References Cited in the file of this patent

UNITED STATES PATENTS

342,484	Wade	May 25, 1886
1,060,046	Wells	Apr. 29, 1913
1,395,863	Nelson	Nov. 1, 1921
1,887,447	Balinger	Nov. 8, 1932
2,498,360	Darling	Feb. 21, 1950