May 22, 1934. W. J. WALSH 1,959,774

ADHESIVE APPLICATOR

Filed March 10, 1932

Fig. 1

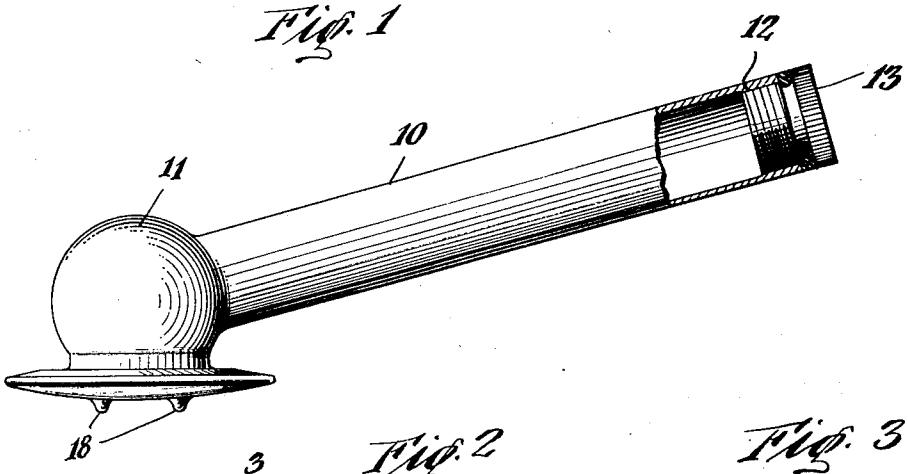


Fig. 2

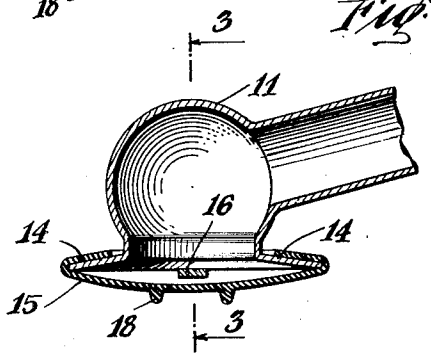


Fig. 3

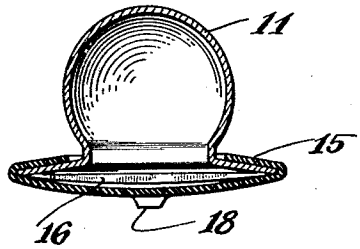


Fig. 4

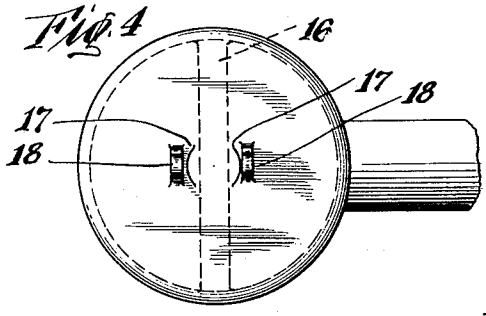


Fig. 5

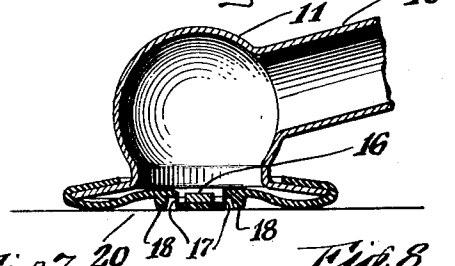


Fig. 6

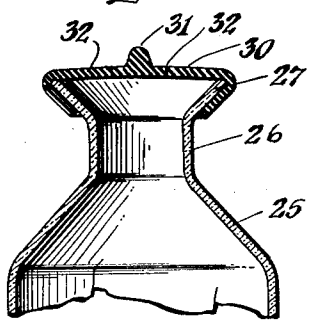


Fig. 7

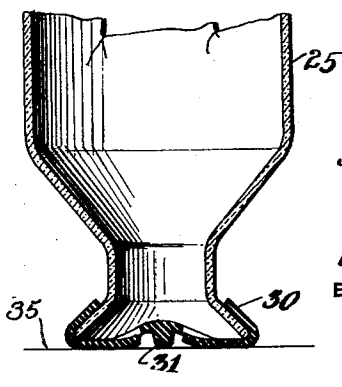
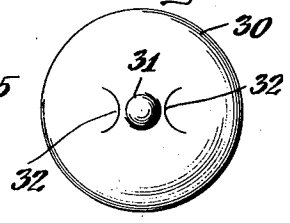


Fig. 8



INVENTOR

William J. Walsh

BY August & Heavy

ATTORNEYS

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ADHESIVE APPLICATOR

William J. Walsh, Brooklyn, N. Y.

Application March 10, 1932, Serial No. 597,906

4 Claims. (Cl. 91—67.4)

This invention relates to adhesive applicators and particularly to adhesive applicators which contain a reserve supply of a fluid adhesive material.

In accordance with this invention an attachment is provided to be applied to a member containing a supply of fluid adhesive material which, when this attachment is pressed upon a surface desired to be coated by the adhesive material, will permit the material to flow upon this surface. The attachment as contemplated as a part of this invention may be attached to a member designed to be filled from time to time with a supply of fluid adhesive material or may be attached to and sold as a part of a bottle of adhesive material such as mucilage, sodium silicate, paste or glue. This attachment may consist of a suitably slitted elastic member having projections on the outer face thereof which when pressed against the surface to be supplied with an adhesive fluid will open up the slits and permit the fluid to flow upon this surface.

An object of this invention is to provide an adhesive applicator to supply an adhesive fluid on a surface.

Another object of the invention is to provide an elastic attachment for a member containing a supply of adhesive fluid which will apply said fluid to a surface in desired quantities.

These and other objects will be apparent to those skilled in this particular art from the claims and the description in the specification in connection with the drawing in which:

Figure 1 is a side elevation of a member illustrative of the invention.

Figure 2 is a side elevation in section of a portion of the member illustrated in Figure 1.

Figure 3 is a sectional front view taken along the lines 3—3 in Figure 2.

Figure 4 is a bottom view of Figure 2.

Figure 5 is a sectional view of the member shown in Figure 2 when in operation.

Figure 6 is a side elevation of a modification of the invention.

Figure 7 is a side elevation of the member shown in Figure 6 while in operation.

Figure 8 is a bottom view of the member illustrated in Figure 6.

In the embodiment of the invention which has been chosen for purposes of illustration and referring now to the drawing, in Figure 1 is shown a hollow member 10 having a balled portion 11 at one end thereof and a screw threaded portion 12 provided with a cap 13 at its other end. As more clearly shown in Figures 2 and 3 the balled portion 11 has a belled or flared portion 14 at its lower end. An elastic member 15 which may be made of rubber or any other suitable resilient material is secured to the balled portion 11 by means of its cooperation with the belled portion 14. A bar 16 is secured at its ends to the underface of the belled portion 14, preferably near the rim thereof, and extends across the open bottom of the balled portion 11 and is enclosed by the elastic member 15.

As shown in Figures 4 and 5 the elastic member 15 has two slitted portions 17 and two projecting members 18 located outside of the slitted portions and adjacent thereto. The hollow member 10 and its balled extension 11 may be filled with a liquid adhesive material such as sodium silicate, paste, mucilage or glue by removing the cap 13.

When coating a suitable surface such as the one shown at 20 in Figure 5, assuming that the hollow member 10 is adequately filled with a suitable liquid adhesive material, the face of the elastic member 15 is pressed on said surface. Because of the projections 18 portions of the elastic member 15 are pressed inward towards the balled portion 11 but the bar 16 striking the central portion of the elastic member between its two projecting members will limit the inward movement of that portion so that since the projecting members 18 will be pushed inwardly further than the portion contacted by the bar 16, the slits 17 are opened and the liquid adhesive material flows therethrough. The flattened surface of the elastic member 15 may be used to spread this liquid adhesive evenly over the surface upon which it is to be applied. When the surface to be coated is sufficiently covered with adhesive material the member is removed therefrom and the elastic member 15 will then return to its original shape closing the slitted portions 17. The slight amount of liquid adhesive that may have adhered to the surface of the member 15 over the slitted portion 17 will quickly harden and serve as an air seal to keep the adhesive material within the reservoir 10 in its liquid form.

In the embodiment of the invention illustrated in Figures 6, 7 and 8 there is shown a bottle 25 adapted to contain a liquid adhesive material such as used in connection with the reservoir 10 previously described. This bottle 25 is provided with a neck 26 having a belled portion 27 which is covered by and is adapted to retain an elastic member 30 somewhat similar in character to the elastic member 15 just described in some detail.

The elastic member 30 is provided with a pro-

jection 31 which may be located at its central portion and has slitted portions 32 spaced apart from the projection 31.

In the operation of this device the bottle 25 is turned upside down and the projection 31 is pressed against the surface to be coated with a fluid adhesive. Due to the pressure of this surface, projection 31 and the elastic material directly surrounding it is forced upward towards the interior of the bottle and will open the slits 32 permitting the liquid adhesive material to flow out upon a surface 35 to be coated. The face of this elastic member 30 may be conveniently used to evenly distribute the fluid adhesive material upon the surface 35.

In the preferred embodiments of the invention which we have illustrated and described in some detail the elastic members 15 and 30 are given only a slight outward curve such as to permit them to be readily fixed respectively to the belled portion 14 of the ball 11 and the belled portion 27 of the bottle 25. This shape of the elastic members has been found to be most convenient for when a greater curvature is given to the elastic portion buckling often occurs and the slits do not open a uniform amount. It is not our intention, however, to limit the scope of this invention to any particular curvature of the elastic member shape of the adhesive containing reservoirs, or number of projections or slits in the elastic member.

Specific illustrative embodiments of the invention have been described in some detail but it is to be understood that changes, additions, substitutions and omissions may be made therein within the spirit of the invention as defined by the appended claims.

I claim:

1. In an adhesive applicator, a reservoir adapted to contain an adhesive liquid and having a flared portion, a bar disposed across said flared portion and secured thereto, and a slitted elastic member having projections thereon secured to said flared portion, said projections being adapted when pressed upon a surface to be pressed inwardly toward said flared reservoir and an intermediate portion being held by said bar whereby said slitted portion is opened.

2. In an adhesive applicator, a reservoir adapted to contain an adhesive liquid and having a flared ball shaped end portion, a bar disposed across said flared portion and secured thereto, and a slitted elastic member having projections thereon secured to said flared portion, said projections being adapted when pressed upon a surface to be pressed inward toward said ball shaped portion and said elastic member having an intermediate portion held by said bar whereby said slitted portion is opened.

3. In an adhesive applicator, a reservoir adapted to contain an adhesive liquid and having a flared portion, a bar disposed across said flared portion and secured thereto, and a slitted elastic member having an outwardly curved face with projections thereon secured to said flared portion, said projections being adapted when pressed upon a surface to cooperate with said bar to open said slitted portion and permit said fluid adhesive material to flow upon said surface.

4. In an adhesive applicator, a reservoir adapted to contain an adhesive liquid and having a flared portion, a bar disposed across said flared portion and secured thereto, and a slitted elastic member having an outwardly curved face with projections thereon secured to said flared portion, said projections being adapted when pressed upon a surface to be pressed inwardly and an intermediate portion of said outwardly curved elastic member being held by said bar whereby said slitted portion is opened, said elastic member returning to its original shape when the pressure is removed.

WILLIAM J. WALSH.