V. E. WASSERLEIN.

MUCILAGE HOLDER AND APPLIER.

APPLICATION FILED MAR. 4, 1919.

1,438,510. Patented Dec. 12, 1922.

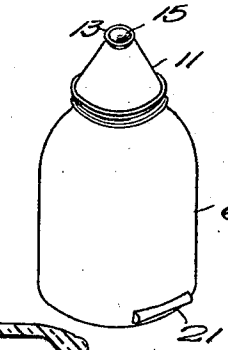


Fig. 1.

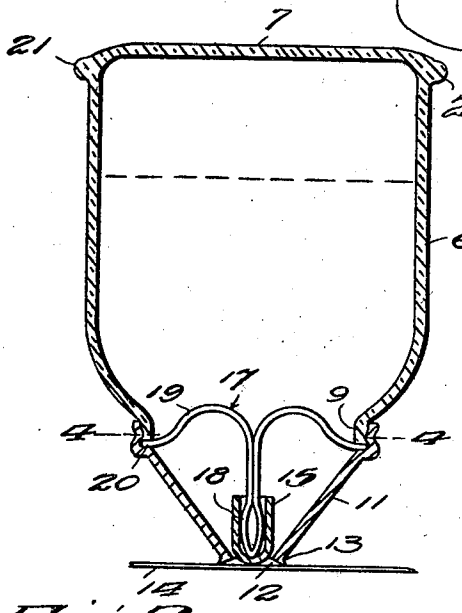


Fig. 2.

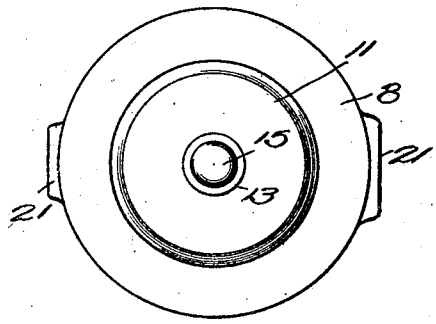


Fig. 3.

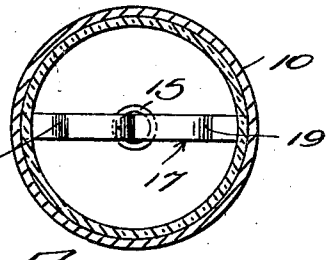


Fig. 4.

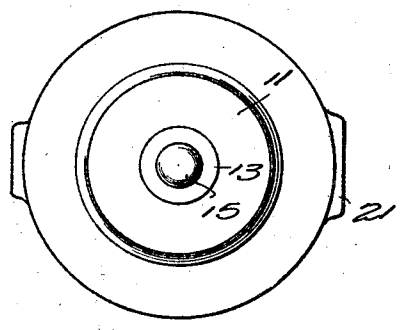


Fig. 5.

Victor E. Wasserlein
Inventor

By Geo. P. Kimmel.
Attorney

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UNITED STATES PATENT OFFICE.

VICTOR E. WASSERLEIN, OF CHICAGO, ILLINOIS, ASSIGNOR TO J. E. M. PRODUCTS CORPORATION, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

MUCILAGE HOLDER AND APPLIER.

Application filed March 4, 1919. Serial No. 280,601.

To all whom it may concern:

Be it known that I, VICTOR E. WASSERLEIN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Mucilage Holder and Applier, of which the following is a specification.

This invention has for its object to provide a container for mucilage or other liquid adhesive with a novel type of closure cap carrying an article operated control valve which is automatically unseated by contact of the discharge end of the cap with an object to permit the liquid adhesive to flow by gravity upon the surface over which the cap is moved.

Another object is the provision of a novel type of spreading or distributing element forming an integral part of the body of the receptacle or holder and so arranged as to be conveniently applied to use without inverting or entirely upsetting the receptacle.

With these and other objects in view as will appear as the description proceeds, the invention comprises the novel features of construction, combination of elements and arrangement of parts which will be more fully described in the following specification and set forth with particularity in the claims appended hereto.

In the drawings:

Figure 1 represents a perspective view of the improved holder and applier for mucilage.

Figure 2 represents a longitudinal sectional view therethrough, the holder being illustrated in inverted position and applied to use,

Figure 3 represents a top plan view of the device,

Figure 4 represents a detail sectional view through the neck of the receptacle on the line 4—4 of Figure 2, and

Figure 5 represents a top plan view of a modification of the invention.

Referring to the drawing in detail, wherein similar reference numerals indicate corresponding parts throughout the several views, the numeral 6 indicates the hollow body of the container which is preferably constructed of glass or similar material rendering the contents of the container clearly visible and consisting of a cylindrical side wall and bottom 7 provided with a flat lower surface and permitting the container to be set and maintained in an upright position. The upper terminal of the container is restricted providing the neck portion 8 and the open end is formed with an internal bead 9 for coaction with the annular flange 10 carried by the cap 11 whereby the latter is detachably and frictionally held in position upon the body. The material of the flange 10 is preferably resilient and the extreme edge is turned inwardly so as to engage behind the bead 9 and effectively grip the latter in such a manner as to prevent accidental displacement of the cap from the container body.

The cap 11 is of hollow frusto-conical formation and the relatively small truncated terminal thereof is substantially a discharge opening 12 through which the contents of the container are discharged and the edge of the cap is drawn to an external and relatively narrow flange 13 facilitating the convenient distribution of spreading of the mucilage over an article 14 when the bottle is inverted as suggested in Figure 2.

The edge of the opening 12 constitutes a valve seat designed to cooperate with the spring actuated valve or closure member 15 whereby the discharge port of the container is closed when not in use. The slightly inclined top of the valve seat is adapted to retain just sufficient of the adhesive, after using, to form a thin film around the valve at the point of contact. This film of adhesive dries to form an air-tight closure, thus maintaining the liquid constantly at the same consistency. This is one of the essential features of this invention and is designed to overcome the impracticability of other devices designed for a similar purpose. The valve is provided with a rounded terminal which contacts with the seat so as to ensure of a snug fit of the valve therewith and the inclined or tapered inner surface of the cap constitutes a guide ensuring proper seating of the valve in the port 12 when tension upon the valve is released, as by the removal of the mucilage applier from an article 14 and its restoration to an upright position. The rounded terminal of the valve protrudes beyond the flange 13 and is engageable with the flat surface of an article 14 prior to the actual contact of the flange

13 therewith and it is thus evident that before the opening movement of the valve is stopped by contact with the flange to the article the part 12 has been opened and a quantity of the mucilage discharged therethrough by gravity.

The valve 15 is normally retained in closed position by an actuating spring designated generally by the numeral 17 constructed of relatively thin flat metal bent medially to provide the oppositely bulged valve gripping members 18 which engage within the valve 15 and connect with the oppositely directed terminals 19 which are normally tensioned and yieldably retain the valve 15 against its seat. The extreme ends of the spring terminals are confined between the internal shoulder 20 of the cap 11 and the edge of the open end of the hollow body 6 whereby anchoring the spring terminals in such position as to cause the medial valve gripping portion 18 thereof to move toward the discharge opening 12. As stated, the material of the spring is comparatively light so that a slight pressure as by contact of the valve with the surface of an article 14 will unseat the valve and permit the liquid adhesive to flow over the surface of the object.

The side wall of the hollow body 6 is formed at diametrically opposed points with external ribs 21 which are preferably located adjacent the bottom 7 and are provided with straight edges facilitating the even and broad distribution of the liquid over the article 14 when the ribs are used in the manner of brushes. As will be clearly understood, the length of the respective ribs may be varied, as desired, that is to say the rib at one side of the body of the bottle or container may be of greater length than the one at the opposite side so that the ribs may be used independently for spreading the adhesive liquid over areas of varying widths. If preferred, the width of the spreader flange 13 may be increased to the desired extent, as suggested in Figure 5.

What I claim is:

1. A mucilage holder and applier including a hollow body, a frusto-conical cap carried by the body, a hollow valve normally closing the discharge opening of the cap, and a spring actuating element for the valve normally retaining the latter in closed position and consisting of a strip of spring material bent medially to provide a pair of oppositely bowed members internally gripping the valve and having the terminals anchored between the cap and the body.

2. A liquid container and applier including a hollow bottle provided with an outlet port constituting a valve seat, and a valve adapted to engage the seat to close the port the edge of the port and the valve forming a relatively deep annular groove outside the point of contact of said valve to retain a quantity of the contents of the bottle sufficient, when dried, to provide an airtight closure.

3. In mucilage holders, a container having a conical shaped discharge mouth, and a self closing valve having a rounded end adapted to cooperate with the smaller diameter of the mouth said valve projecting beyond the rim of the larger diameter of the mouth so as to form between the rounded end of the valve and the side walls of the mouth an annular seat of varying depth in which a small portion of the contents of the container will be retained in order to effect a sealed joint between the valve and the mouth, the conical shape of the sealing area lending itself to the easy breaking of the seal when the valve is subjected to pressure.

4. In a device of the character described, a mouth piece having a discharge port, a valve mounted for opening and closing movements relative to said port, a rim on said mouth piece concentrically of the port and co-acting with the valve when closed to provide a variable depth fluid sealing channel whereby when liquid is retained therein on the closing of the valve and said liquid hardened, a fluid-tight joint will be had outside the point of contact of the valve and mouth piece.

5. In a device of the character described, a discharging mouth-piece, a valve in said mouth-piece and normally closing the same, said valve being opened by application of pressure externally of the mouth-piece, the valve when seated being normally protruded through the mouth-piece, and a liquid trapping outwardly turned flange on the mouth-piece above said protruded portion of the valve to provide with the latter when closed a liquid retaining relatively deep pocket entirely about the valve for the sealing of said valve in closed position by the liquid in the pocket when hardened.

6. A liquid container comprising a body having an outlet port constituting a valve seat, and a valve engaged with the seat to close the port, the valve and seat constituting an outer liquid holding groove of conical form and of variable depth for retaining liquid from the container, on the closing of the valve within said groove to effect a fluid-tight joint closure between the valve and seat when said quantity of liquid becomes dried.

7. A liquid container comprising a body having an outlet port constituting a valve seat, and a valve engaged with the seat to close the port, the valve and seat constituting an outer liquid holding flanged relatively deep groove for retaining liquid from the container, within said groove on the closing of the valve, to effect a fluid-tight joint closure between the valve and seat when said

quantity of liquid becomes dried, and means resiliently supporting the valve and normally holding the same engaged with the seat.

8. A liquid container comprising a valve seat, a self closing valve cooperating with the seat, and an annular liquid retaining space of variable depth surrounding the valve outside of the valve seat and into which the valve projects when it engages the seat.

In testimony whereof, I affix my signature hereto.

VICTOR E. WASSERLEIN.