

[54] GLUE DISPENSING ASSEMBLY

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abandoned.

[52] U.S. Cl. 222/88

[51] **Int. Cl.²** **B67B 7/24**

[58] **Field of Search** 222/86, 88, 81, 80, 83.5,
222/181

[56]

References Cited

UNITED STATES PATENTS

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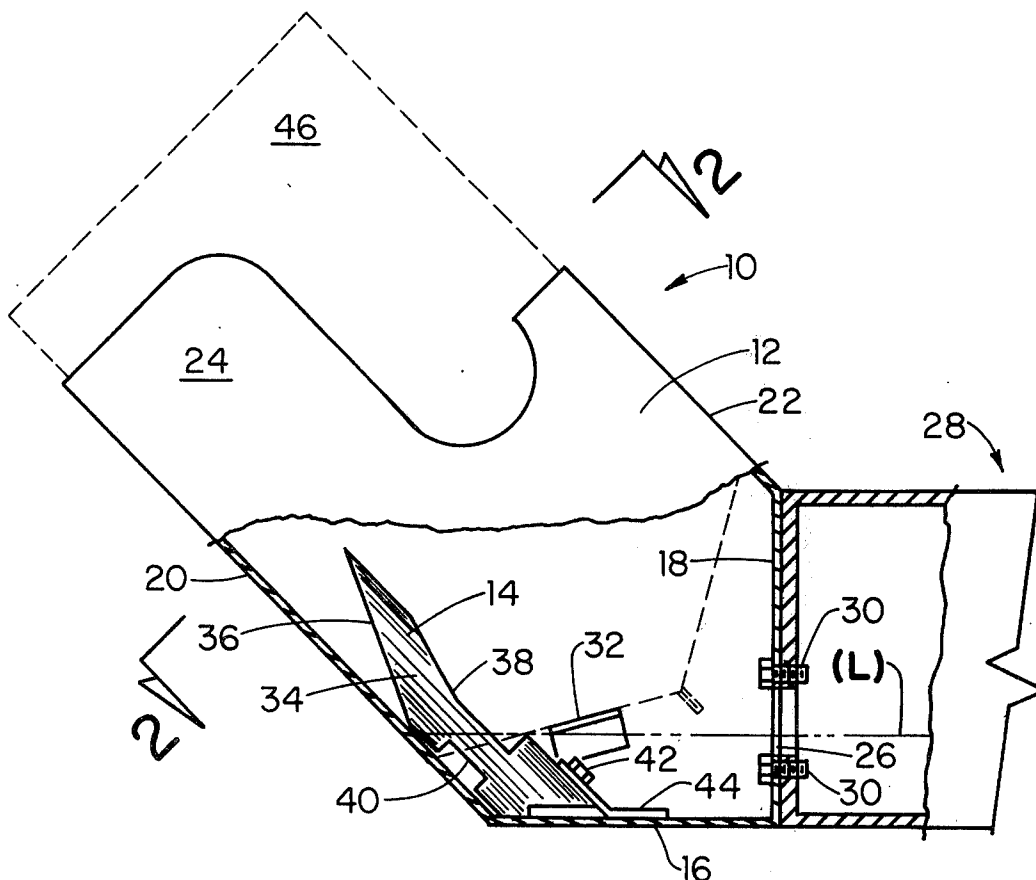
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[57]

ABSTRACT

A glue dispensing assembly is disclosed wherein a housing is provided having a tubular blade member disposed therein which impales a glue container as the container is positioned within the housing and acts as a conduit for the glue.

6 Claims, 2 Drawing Figures



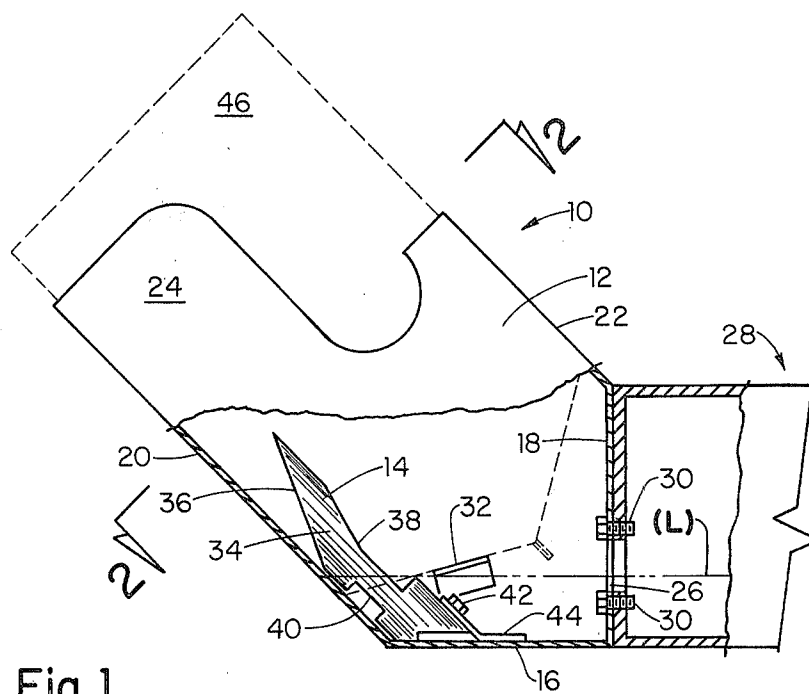


Fig. 1

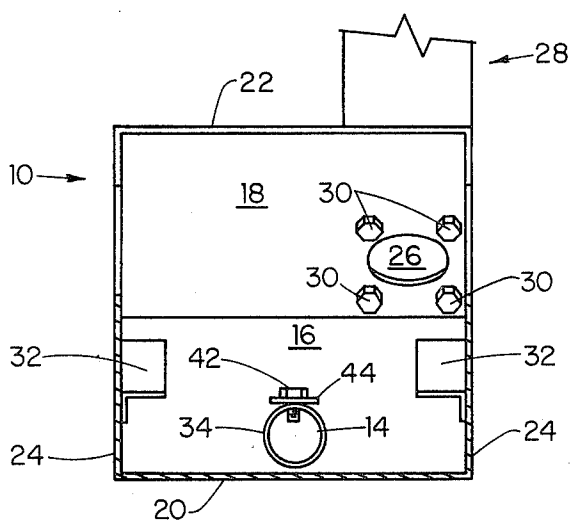


Fig. 2

GLUE DISPENSING ASSEMBLY

This is a continuation of application Ser. No. 312,352, filed Dec. 5, 1972, now abandoned.

BACKGROUND OF THE INVENTION

This invention relates to a viscous liquid dispensing assembly, and more particularly, to a glue dispensing assembly adapted for use with label addressing machines and the like. A difficulty often encountered in dispensing glue to a label addressing assembly is the inability of the operator to rapidly and neatly remove an exhausted glue bottle, refill the glue bottle, invert it and screw it into the glue bottle housing. In order to perform this operation, an operator must use caution to avoid an unacceptable and messy condition.

OBJECTS OF THE INVENTION

It is an object of the present invention to provide a new and improved viscous liquid dispensing assembly.

Another object of the invention is to provide an improved method for readily maintaining a supply of a viscous liquid, such as glue and the like, to a label addressing assembly.

Still another object of the present invention is to provide an improved viscous liquid dispensing assembly which readily allows the replacement of an empty container by a full container.

Various other objects and advantages of the present invention will become apparent from the following detailed description of an exemplary embodiment thereof and the novel features will be particularly pointed out in connection with the appended claims.

BRIEF SUMMARY OF THE INVENTION

In accordance with the present invention, a glue dispensing assembly is provided comprised of a housing and a tubular shaped blade member disposed in an upward projection in the lower portion of the housing. The housing conforms substantially to the cross-sectional shape of a viscous liquid container and is formed in a manner to support the container in an inclined position. Glue dispensing is achieved by placing a container in the housing and impaling a portion of the container on a blade section of the tubular blade member to permit the glue to flow from the container into the housing.

BRIEF DESCRIPTION OF THE DRAWING

The invention will now be described in conjunction with the accompanying drawings, wherein like reference numerals are used throughout and wherein:

FIG. 1 is a side view partially in section, illustrating the viscous liquid dispensing assembly of the present invention; and

FIG. 2 is an auxilliary view of the dispensing assembly of FIG. 1.

DETAILED DESCRIPTION OF THE DRAWING

Referring now to the drawing, there is shown a glue dispensing assembly, generally indicated as 10, having as major elements a housing member 12 and a tubular blade member 14.

The housing member 12 is comprised of bottom wall 16, a front wall 18, an intermediate bottom wall 20, a top wall 22 and side walls 24, thereby defining a viscous liquid reservoir. The front wall 18 of the housing 10 is formed with an orifice 26 to provide a flow path for

glue to a feeder reservoir, generally indicated at 28, with the front wall 18 thereof being mounted to the feeder reservoir 28, such as by screws 30. Inwardly extending plate members 32 are mounted on the side walls 24 to limit the insertion of the container to a fixed or desired position to thereby maintain a liquid level within the housing, as hereinafter more fully described.

The tubular blade member 14 is comprised of a cylindrical wall 34 formed with openings 36, 38 and 40. The openings 38 and 40 are formed by narrowed cut-away sections of the cylindrical wall 34. The opening 36 in the blade member 14 is elliptically shaped and is formed by bisecting the end of the cylindrical wall 36 on a plane inclined at an obtuse angle to the axis thereof. The surface of the cylindrical wall 34 formed about the opening 36, is honed to a sharp edge. Generally, it is desirable to make the tubular blade member 14 of a material that maintains a sharp edge. The diameter of the cylindrical wall 34 is selected to regulate the flow of the glue through the tubular blade member and into the housing member 12. The tubular blade member 14 is disposed in a lower portion of the housing member 12 about an inclined plane extending upwardly with the axis thereof parallel to the side wall 24 and is affixed to the bottom wall 16 of housing member 12, such as by a bolt fastener 42 and bolt holder 44 mounted to the bottom wall 16 thereof.

In operation, a glue container, such as illustrated by the dotted lines in FIG. 1 and referenced as 46, with its top end down, is inserted into the housing 12 until the top portion of the container 46 is caused to meet the plate members 32. The top of the container 46 is impaled by the surface of blade means 14 by the downward movement of the container 46 into the housing 12 and glue caused to flow into the housing 12 through the opening formed in the top of the container 42. As seen by reference to FIG. 1, the glue level (L) is maintained at the highest point of the opening formed in the top of the container 46. As glue flows into the feeder reservoir 28 through the orifice 26 formed in the front wall 18, the level of the glue in the housing 12 recedes to permit air to flow into the opening in the container 46, which in turn allows additional quantities of glue to flow out of the container 46 until the opening is closed and a slight vacuum formed which inhibits additional flow of glue, restoring the glue to a desired level within the housing 12. Upon observation that the feeder reservoir 28 or level of glue (L) is dropping because the supply of glue in the container 46 is becoming depleted, the glue container 46 is withdrawn and a filled container inserted into the housing 12.

Although the glue container 46 shown in FIG. 1 is in the shape of a milk carton, it is understood that the container may take other shapes, such as a cylinder, a square, etc. and the viscous liquid dispenser assembly 10 may be designed to accommodate any such container. Thus, containers with circular, square, triangular bases, etc. would be appropriate for use in the present invention. Moreover, although the description of operation of the assembly is discussed with reference to the dispensing of glue, the instant invention is appropriate for dispensing any viscous liquid.

Numerous modifications and variations of the present invention are possible in light of the above teachings and therefore the instant invention may be practised otherwise than as particularly described.

What is claimed:

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1. Apparatus for dispensing a liquid in a container, comprising:

a housing into which the container is insertable downwardly along a linear path;

a tubular blade member having at least one opening in its wall;

means for connecting the blade member inside the housing with its axis parallel to the direction of the linear path, whereby said blade pierces a hole in the container upon its being inserted a predetermined amount; and

a pair of tabs connected to the inside of the housing at a level above the bottom of the housing for limiting the extent to which said container is insertable into the housing, said hole and at least one of said openings being in communication when further insertion of the container is limited, whereby the

liquid in the container maintains a sump of the liquid in the bottom of the housing.

2. Apparatus as defined in claim 1, further including a feeder reservoir coupled to the housing and means for transferring liquid in the sump to the reservoir.

3. Apparatus as defined in claim 2 wherein a part of the housing is inclined and provides a support for the container.

4. Apparatus as defined in claim 3 wherein the axis of said blade member is parallel to said inclined part of the housing.

5. Apparatus as defined in claim 1 wherein the blade member is cylindrical and includes an elliptically shaped engaging surface.

6. Apparatus as defined in claim 1 wherein the blade member is located adjacent the inclined part of the housing, a wall of the container being slidable between the inclined part and the blade member.

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