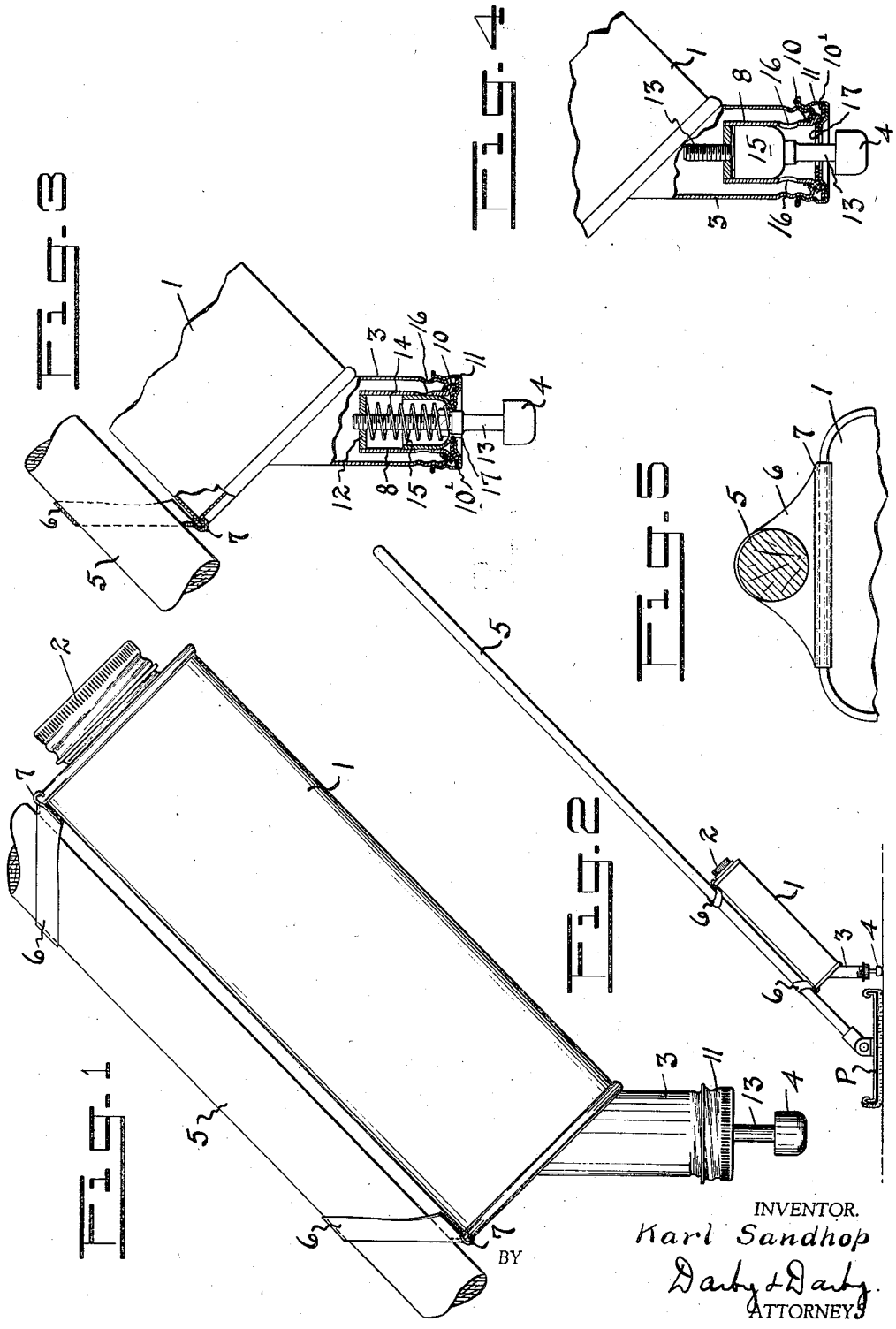
Jan. 25, 1938. K. SANDHOP 2,106,280

DISPENSING DEVICE

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Fig. 8

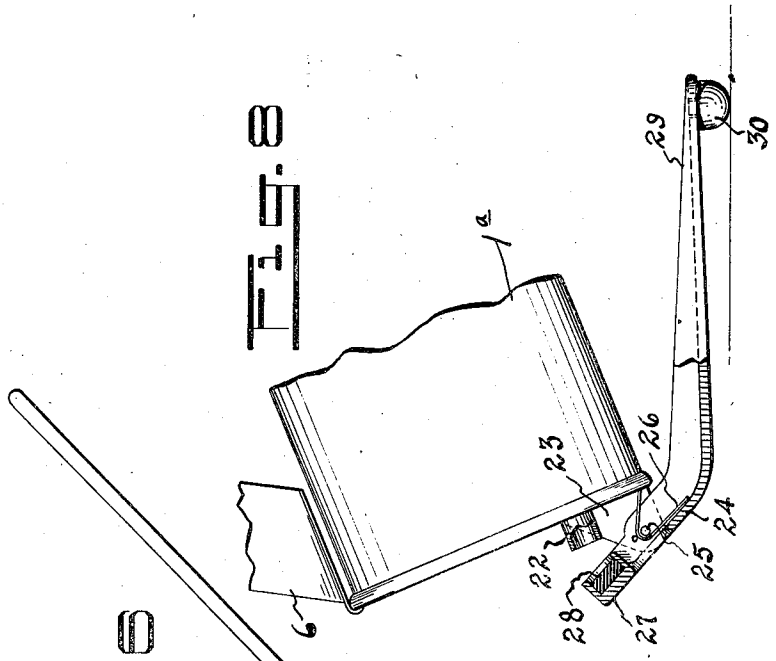


Fig. 6

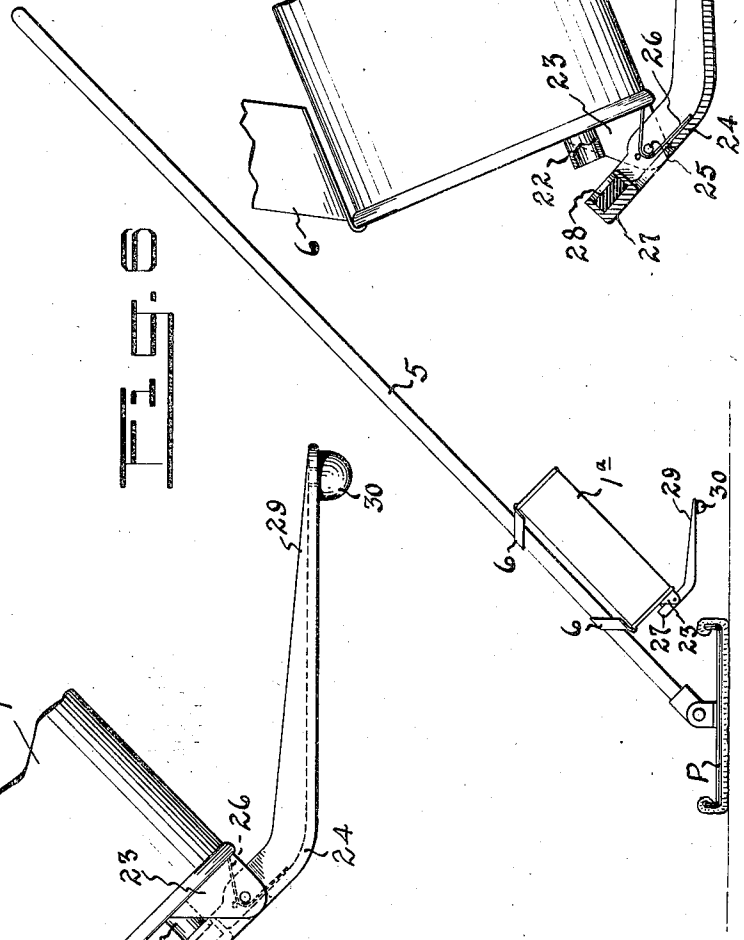
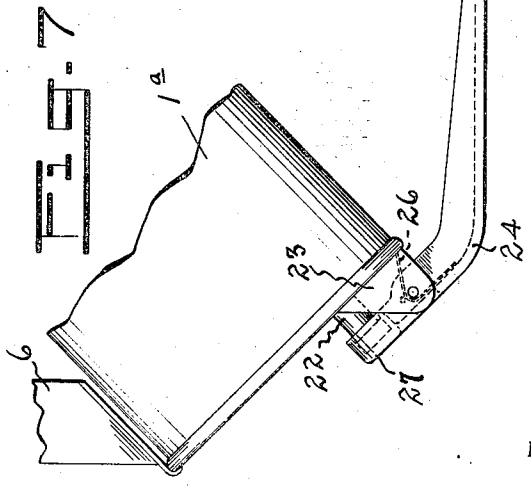


Fig. 7



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DISPENSING DEVICE

Karl Sandhop, Flushing, N. Y.

Application June 12, 1936, Serial No. 84,846

4 Claims. (Cl. 91—25)

This invention relates to improvements in dispensing devices particularly adapted for use in connection with applicators for spreading liquid wax and similar materials over a floor surface.

An object of the invention is to provide in conbination with a floor applicator a valved container arranged so that the contents of the container may be discharged at will by manipulation of the applicator handle onto the floor in the neighborhood of the floor pad or spreader of the applicator.

A further object of the invention is to provide a simplified valving arrangement which is thoroughly sealed against discharge of the material when closed and which may be easily opened to effect discharge of the material from the container.

Another object of the invention is to provide a simple, rugged, and yet inexpensive arrangement for accomplishing these objects.

A further object of the invention is to provide a modified arrangement which may be used in combination with applicators and the like and which may be manually controlled without manipulating the handle of the applicator to discharge a desired quantity of material onto the floor or surface being treated.

These and many other objects will become apparent from the following description.

This invention resides substantially in the combination, construction, arrangement and relative location of parts, all as will be described in greater detail in the following specification.

In the accompanying drawings,

Figure 1 is a side elevational enlarged view of one form of device in accordance with this invention showing only a portion of the handle of the applicator;

Figure 2 is a complete side elevational view of the device in combination with an applicator;

Figure 3 is an enlarged detailed view showing certain parts in cross-section with the valve closed;

Figure 4 is a cross-sectional view showing the valve open;

Figure 5 is a cross-sectional view through the handle of the applicator showing the means for mounting the container thereon;

Figure 6 is a complete side elevational view of a modified form of arrangement which may be operated manually by manipulating the handle of the applicator;

Figure 7 is an enlarged side elevational view of the modified mechanism employed in this arrangement; and

Figure 8 is a similar view showing the valve open with parts in cross-section.

As illustrated, the invention comprises a container 1 of any suitable size, shape and form and made of any suitable material, such as light tinplate. It is provided with a filling opening closed by means of a removable screw cap 2 at its upper end. Its lower end is provided with a discharge spout 3 which is closed by means of a removable screw cap 11 which together form a housing for the discharge valve, the stem of which is shown at 13 terminating in an operating button 4. The container is mounted on the handle 5 of any suitable type of applicator by means of straps 6 which have ends shaped as indicated at 7 to fit over the sealing seams at the ends of the container. The straps 6 comprise suitably shaped metal plates which are formed so that when the channel edges 7 fit over the beads on the ends of the container the strap portions point towards each other in a manner so that the container may not be slid along the handle. This construction firmly locks the container at any desired point on the handle and yet permits ready removal thereof when desired. Any tendency to slide the container will result in a binding of the straps on the handle firmly locking it in place.

Within the valve housing is an internally projecting tube 8 which is open at its outer end and flanged to fit over and seat upon the circumferential edge of the spout 3. If desired, and as shown, a gasket 10 may be fitted between these parts to form a seal. Another gasket 10' fits against the flanged edge of the tube 8 and all these parts are locked and sealed together by means of the screw cap 11. The screw cap and the gasket 17 are provided with aligned central apertures arranged so that a portion of the gasket around the aperture, as indicated at 17, projects radially beyond the circumference of the aperture in the screw cap 11. The inner end of the tube 8 is sealed by an end plate 12. Slidably mounted in the tube 8 is a thimble-shaped metal member 15 which has a sliding fit therewith. This thimble member is mounted upon the valve stem 13 and a coil spring 14 lies between it and the end plate 12. As is clear from Figure 3, this spring normally forces the rounded outer end of the thimble against the flexible projecting circumferential edge 17 of the gasket 10' to form a seal. In this position of the parts the thimble member also seals a plurality of holes 16 in the wall of the tube 8.

The container is positioned on the handle 5 so that in the normal movements thereof in mov-

ing the applicator pad, which is pivotally mounted thereon, over the surface being treated the button 4 does not touch the floor. When it is desired to release some of the contents of the container 1 onto the floor the upper end of the handle is swung downwardly so that the button engages the floor causing the thimble 15 to slide in tube 8 to the position shown in Figure 4. The contents of the can may then escape through the openings 16 and around the valve stem 13 onto the floor. When sufficient material has been released, the upper end of the handle is raised and spring 14 moves the thimble back to the position shown in Figure 3, closing the valve. The applicator is then used to spread this material.

The same general objects of this invention may be accomplished by the simpler arrangement illustrated in Figures 6, 7, and 8. With this arrangement the container, which is indicated at 1^a, as before, is attached to the handle 5 of the applicator P by means of detachable straps 6 similar to those employed with the previous arrangement. In this case the container has a short tubular discharge spout 22 arranged to be closed by a valve mechanism pivotally mounted on ears or arms 23 supported on the container. Extending between these ears is a pivot pin 25 on which is pivotally mounted an arm 24 terminating at one end in a cup-shaped valve member 27 which is provided with a gasket disc 28. The valve member is positioned so that it fits down over the tubular spout 22 to engage the gasket disc with the end thereof. A suitably shaped and mounted spring 26 acts to normally hold the valve closed, that is in the position shown in Figure 7. The valve member 24 is provided with an extending arm 29 terminating in a suitable contact button 30. The arm 29 is proportioned and shaped so that when the container 1^a is mounted on the handle 5, as shown in Figure 6, the button 30 will engage the floor when the free end of the handle is depressed. When this happens the valve opens, as is clear from Figure 8, discharging a desired amount of the contents thereof onto the floor adjacent the applicator.

It is apparent that with an arrangement of this type either the container may be refilled from any suitable supply source as desired or may be completely discarded and replaced by a new filled container, depending upon the factors of cost and convenience.

From the above description it will be apparent that this invention resides in certain features of construction which may be embodied in various physical forms. I do not, therefore, desire to be strictly limited to this disclosure, which is given in an illustrative sense, but rather to the scope of the appended claims.

What I seek to secure by Letters Patent is:

1. In a device of the type described the combination comprising an applicator having a handle, a container mounted on said handle, and a valved spout secured to said container and arranged to engage the valve with the surface on which the applicator rests when the handle thereof is depressed to open the valve, whereby the contents of the container may discharge by gravity.

2. In a device as described, the combination comprising a surface treating tool having a handle, a container mounted on said handle, a discharge spout on said container, and a valve mounted in said spout having a stem projecting therefrom, said stem being positioned to engage the surface being treated when said handle is swung downwardly to release by gravity the contents of the container.

3. In a device of the type described, the combination comprising an implement for spreading a liquid on a surface, having a handle, a container detachably secured to said handle, a spout for said container having a spring closed valve therein, and a stem for said valve projecting from said spout, said container being positioned on said handle so that said stem may be engaged with the surface upon which the implement rests when said handle is manipulated.

4. The combination with a floor treating implement and a handle therefor, of a container having a discharge spout, an apertured cap detachably secured to the end of the spout, a sleeve projecting into the spout and held in place by said cap, said sleeve having a series of apertures in the wall thereof, a valve stem in said sleeve and projecting through the aperture in the cap, a valve member mounted on said stem and slidably mounted in said sleeve, and a spring engaging said member to normally hold it in sealing engagement with the aperture in the cap and the apertures in the sleeve, said container being mounted on the handle adjacent the implement so that depression of the handle when the implement engages the floor engages the valve stem with the floor to unseat the valve.

KARL SANDHOP.