Jan. 24, 1933. H. F. SIELAFF 1,895,009

LIQUID RECEPTACLE AND SPRINKLER

Filed March 16, 1928

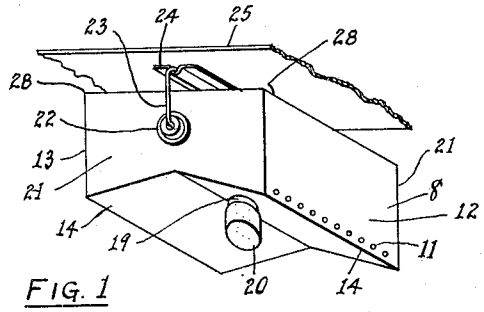


FIG. 1

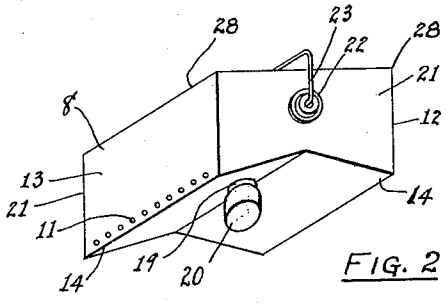


FIG. 2

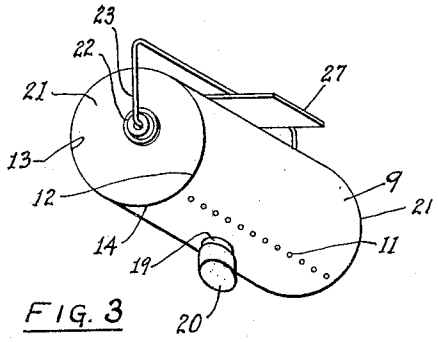


FIG. 3

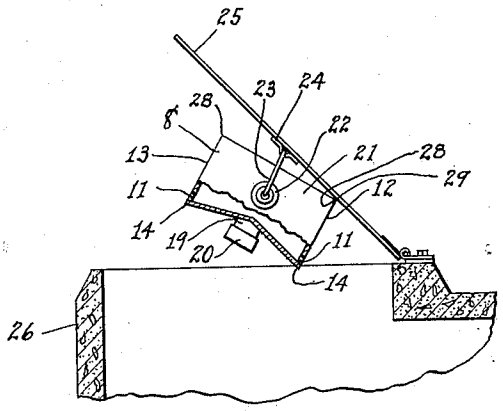


FIG. 4

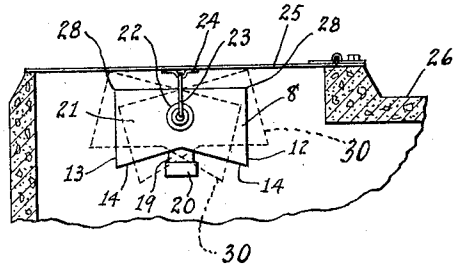


FIG. 5

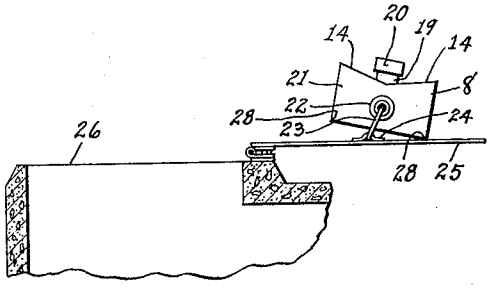


FIG. 6

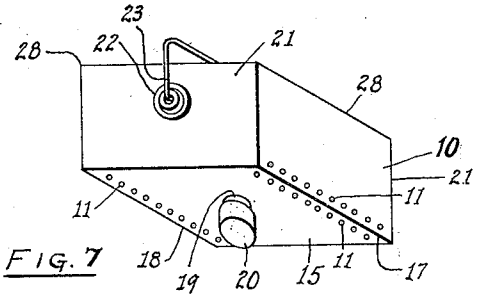


FIG. 7

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LIQUID RECEPTACLE AND SPRINKLER

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My invention relates more particularly to improvements in liquid receptacles and sprinkling devices in which is contained the novel feature of sustaining a liquid, such as germicides, water, etc., in the receptacle by means of the unequal atmospheric pressure conditions existing against the said liquid, and intermittently changing the said pressure conditions, which sustain the said liquid in the said receptacle, so that the liquid will flow through a series of small orifices, or perforations, longitudinally arranged in the sides of the receptacle in a line parallel with the bottom of the said receptacle.

The manner in which my invention is adapted to be used constitutes and includes the improvements as embodied in my invention. As, for instance, when the device (when installed on the underside of a refuse box cover) is swung in either direction from its normal vertically hung position the normal pressure conditions sustaining the liquid in the said receptacle is automatically changed and its equilibrium disturbed causing the liquid, such as a germicide, to flow from the receptacle by gravity, first in one direction and then in the opposite direction, through the said orifices in the opposite sides of the receptacle, onto the refuse (which may contain disease germs) which is in the container, such as garbage boxes.

Another feature contained in my invention is to provide a liquid sprinkling device that will not corrode when filled with certain kinds of liquid germicides that chemically attack and disintegrate certain metallic materials.

The objects of my improvements will be more fully outlined in the several illustrations of the accompanying drawing and more fully described in the following specification, and more particularly pointed out in the appended claims. In the several views illustrated in the accompanying drawing is presented the improvements as embodied in my invention.

Fig. 1 shown in perspective, represents my improved liquid sprinkling device (which, in this case, contains a liquid germicide) attached to the underside of a refuse receptacle cover.

Fig. 2 is a similar perspective view to that shown in Fig. 1, but it is shown opposite hand to that of Fig. 1, and, with the cover and hinge plate removed.

Fig. 3 shown in perspective, also represents my improved liquid sprinkler, but, instead of being box-like in shape, it is made cylindrical.

Fig. 4 is a view showing the improved liquid sprinkling device attached to the underside of a partly opened refuse box cover, and is shown in one of its operating positions. A portion of the upper part of a refuse box is shown in section.

Fig. 5 is a similar view to that shown in Fig. 4, but with the refuse box cover closed and the sprinkler hung in its normal or inoperative position. The sprinkler shown in dotted lines indicate the operating positions it takes, after the cover has been let down as shown, before it settles to its normal or inoperative vertical position.

Fig. 6 is a view of the sprinkler turned upside down on the opened cover of the refuse box so that it may be refilled.

Fig. 7 shown in perspective, represents a modified form of my box-like shaped sprinkling device and has a flat bottom instead, and a series of small orifices arranged along both sides of the lower right and left hand corners of the box.

Similar characters refer to similar parts throughout the several views.

In the several views, Figures 1, 2, 4, 5, and 6, (8) represents a preferred style and shape of my receptacle and sprinkler, and in Figure 3, (9) represents a modified form of my invention and is made cylindrical. Also, in

Fig. 7, (10) represents a slight modification of the device shown in Figures 1, 2, 4, 5, and 6.

Referring to Figures 1, 2, 3, 4, and 5, it will be seen that a series of comparatively small orifices, or perforations, 11, are arranged longitudinally on opposite sides, 12, and 13, of the receptacle 8, and 9, and near the bottom, 14, thereof. But in Fig. 7, it will be seen that both the bottom, 15, and the sides, 16, have a series of said orifices, 11, arranged along both sides of the lower right and left hand corners, 17, and, 18, respectively. Also, it will be noted in Figures, 1, 2, 4, 5, and 6, that the bottom, 14, is sloping upwardly toward the center from each of the lower right and left hand corners of the receptacle, 8, forming an inverted V bottom. But, in Fig. 7, it will be seen the bottom, 15, of the receptacle, 10, is substantially flat.

About midway in the bottom of the receptacles, 8, 9, and 10, is a place, 19, for filling the receptacle and is closed by the screw cap, 20. On opposite ends, 21, of the receptacle, and about midway thereof, and slightly above the center of gravity, is rigidly mounted a socket, 22, into which is attached the ends of a bail, 23. A grooved hinge plate, 24, is provided for attaching the receptacle to the underside of the cover, 25, of a refuse container, 26, in the manner indicated, as in Figures 1, 4, 5, and 6.

On the upper side of the sprinkler, 9, Fig. 3, is secured a cross piece, 27, extending equidistant either way from the normal vertical center line of the receptacle. This cross piece, being of a suitable length, acts as a stop to limit the angular swing of the sprinkler, similarly, as do the corners, 28, of the rectangular shaped sprinkler, 8; as, for instance, in the manner shown in Fig. 4, at 29.

In the Figures 1, 2, 3, 5, and 7, the sprinkling device is shown in its inoperative or normally vertical position. But, as shown in Fig. 4, the refuse box cover, 25, has been raised, sufficiently, so that the sprinkling device, 8, swings to its operating position with one of its corners, 28, supported against the cover, 25. Fig. 5, however, shows the refuse box cover, 25, in its closed position and the sprinkling device, 8, hanging from the cover, 25, in its inoperative, or normally vertical position. However, when the cover, 25, is let down from the open position shown in Fig. 4, the receptacle, 8, oscillates back and forth, as indicated in dotted lines, 30, until it finally settles to its normal inoperative position, as above stated.

When the receptacle, 8, 9, or 10, is hanging in its normal or inoperative position the germicide or other liquids can not flow through the orifices until the unequal atmospheric pressure conditions existing against the liquid have been altered. And, since the external atmospheric pressure on the liquid is greater than that of the confined air in the receptacle, the liquid will remain in the receptacle until the receptacle has been tilted sufficiently to cause the level of the liquid to be at, or below, the level of one or the other of the series of the comparatively small orifices, 11, which are arranged in the opposite sides of the receptacles, 8, 9, or, 10. It may also be stated, that when the liquid in the sprinkler is brought from rest to motion by tilting the sprinkling device, first one way and then another, the liquid has been disturbed to such an extent that a state of equilibrium of the liquid in the sprinkler no longer exists, therefore the liquid immediately flows through one or the other of the said series of orifices during every alternate tilting of the said sprinkler.

It may be further stated, too, that the device may be used for other purposes than as a germicide sprinkling device. For instance, it may be used to sprinkle clothes, plants, or such like. In fact, there are many uses to which it may be put.

Having thus described my invention it can be readily understood that the minor details of my construction may be altered in several ways without departing from the spirit of my invention, therefore, what I claim and desire to secure by Letters Patent is—

1. A liquid sprinkling device of the character described comprising; a box-like receptacle being supported by a bail upon the closure of a refuse box, a series of comparatively small orifices arranged in opposite sides of said receptacle and near the lower corners thereof, a filling aperture centrally arranged in the underside of said receptacle, a screw-cap for closing said aperture, a socket secured on the ends of said receptacle and disposed slightly above the center of gravity thereof, a bail secured in said sockets, and said sockets providing bearings for the ends of said bail.

2. A liquid sprinkling device of the character described comprising: a perforated box-like liquid germicide receptacle being swingably supported by a bail upon the closure of a refuse box, the perforations thereof comprising a series of comparatively small orifices, said orifices being arranged in parallel rows at or near the lower corners of said receptacle, and means to alternately change the position of said orifices so that they will be oppositely arranged at different levels, substantially for the purpose specified.

3. A liquid sprinkling device of the character described comprising: a perforated box-like liquid germicide receptacle being swingably supported by a bail upon the closure of a refuse box, the perforations thereof comprising comparatively small orifices arranged in parallel rows along the lower edges of said receptacle, and means to alternately change the position of said orifices from a normal horizontal level to different levels above and

below normal, substantially for the purpose specified.

4. A liquid sprinkling device of the character described comprising: a perforated box-like liquid receptacle having a bail, said receptacle being secured by means of said bail upon a refuse box closure and arranged for swinging motion to various positions with respect to said closure, a filling aperture centrally disposed on the underside of said receptacle and a closure for said aperture.

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