April 3, 1951 P. J. GRANT 2,547,314

INSECTICIDE CONTAINER

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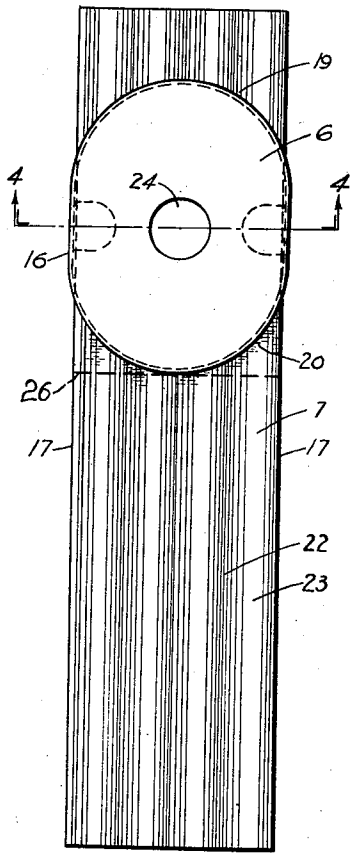


FIG. 1.

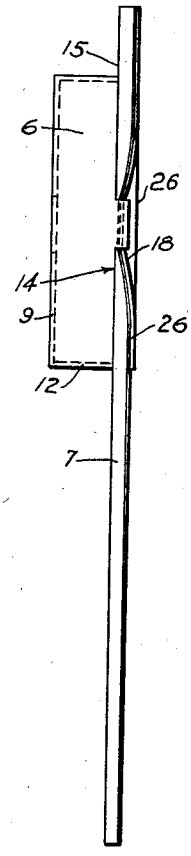


FIG. 2.

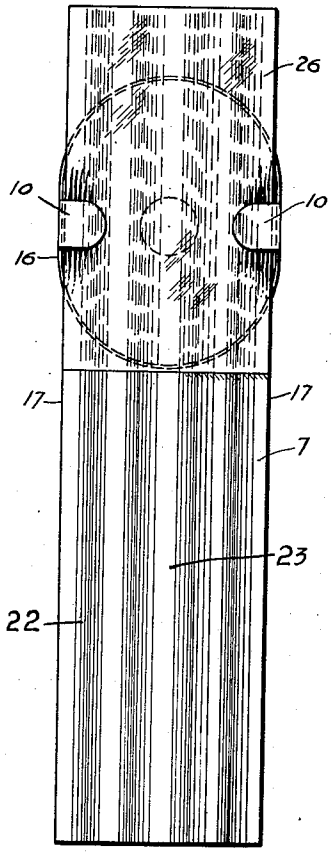


FIG. 3.

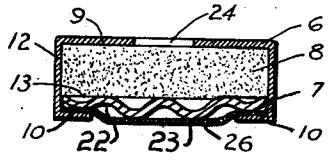


FIG. 4.

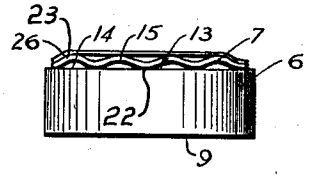


FIG. 5.

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INSECTICIDE CONTAINER

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4 Claims. (Cl. 43—131)

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The invention relates to insecticide holders or containers, and particularly to the type of container designed to be used outdoors and supported on the ground or other surface.

An object of the invention is to provide a container of the character described which will permit the insecticide material to be distributed without waste over a large area and in such manner that a maximum number of insects can be fed at the same time with the exposure of a minimum amount of insecticide material.

Another object of the invention is to provide an insecticide container which will afford ready access of the material to insects but afford practically no access to children and pets.

A further object of the invention is to provide a container or holder of the character described which may be used with an insecticide in the form of a partially water-soluble semi-solid preparation, and when so used will permit the introduction of water in limited amounts for mixture with the contents, as when the surrounding area is being sprinkled, and then cause the effective discharge and distribution of any dissolved portion of the contents.

A further object of the invention is to provide a container of the character described when can be inexpensively manufactured, will have parts which may be assembled and held together in operative relation without the need of separate fastening means, and will be designed in such manner that relatively great strength and sturdiness will be afforded when made of comparatively light sheet metal.

The invention possesses other objects and features of advantage, some of which with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawings accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawings and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawings:

Figure 1 is a front elevational view of the container of my invention.

Figure 2 is a side view of the container.

Figure 3 is a rear elevational view of the container.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 1 but not showing the portions of the standard 7 and the plate 25 extending upwardly beyond the section line.

Figure 5 is an end view of the container.

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The holder in the form of the invention here illustrated comprises in general a receptacle 6 for insecticide material, and a standard 7 upon which the receptacle is mounted and by which it is normally supported in elevated relation upon the ground or other surface. The holder or container of my invention is used with an insecticide material 8 of a toxic and gelatinous nature and arranged to be in the form of a semi-solid mass when contained in the receptacle and being partially water-soluble to permit small portions to be dissolved such as when the holder is exposed to a water spray or the like.

Both the receptacle and standard as here shown are designed to be formed of sheet metal, the standard being in the form of a thin strip which in practice is preferably made about five or six inches long and about one inch wide, the lower end of the standard being arranged for insertion in the ground so as to support the standard in a generally vertical position. The receptacle as will be seen from Figure 4, is in the form of a cup having a flat end wall 9, side walls 12 extending perpendicular therefrom, and an open end 13 defined by the outer edge 14 of the walls. The receptacle is preferably formed as a stamping and is arranged to be mounted and positioned on the standard with the open end 13 facing and against what may be termed the front side 15 of the standard. It will thus be clear that the semi-solid insecticide material in the receptacle will be confined therein between the wall 9 and the said side 15 of the standard. As will be clear from Figures 1 and 3, the receptacle is of generally cylindrical form with the side portions 16 preferably extended so as to elongate the receptacle in one direction. At its shorter width, the receptacle corresponds substantially with the width of the strip constituting the standard, and as will also be clear from Figures 1 and 3, the receptacle is positioned on the strip with the longer width of the receptacle extending longitudinally of the strip and with the side portions 16 at the longitudinal edges 17 of the strip. Attachment of the receptacle to the standard, which is done after the receptacle has been filled with the unsecticide material, is here shown effected by means of integral tongues or tabs 10 extending from the side portions 16 and bent around the rear side 18 of the strip as shown in Figures 3 and 4.

Discharge of the insecticide from the receptacle is arranged to be effected from the lower portion and in such manner that the discharging material will be deposited on the standard and

made available to the insects. Admission of water to the receptacle to permit small portions of the material to be dissolved and then precipitated to the bottom for discharge from the receptacle as aforesaid, is allowed at the upper portion of the receptacle. In the present embodiment, as a means of providing for the effective discharge of the material and for permitting the entry of the water, the adjacent surfaces of the receptacle and standard are designed so as to form intake and discharge openings 19 and 20 located at the top and bottom portions of the receptacle, and as here shown these openings are produced by corrugating the standard so as to form alternate vertically extending raised or crest portions 22 and depressions 23 facing the receptacle. The corrugations are desirably carried through for the full length of the strip and across the entire width thereof, thus providing a series of clear vertical passages from the upper to the lower sides of the receptacle through which the water may be carried to the material and the dissolved material carried to the discharge orifices. These clear passages are also important in that they permit the excess water to pass directly through the container and thus avoid dissolving the material too rapidly or otherwise impairing the potency of the same. It should be noted that a substantial portion of the standard is caused to extend upwardly from the receptacle, such portion serving as a deflector to catch and direct the water to the openings 19 when the area containing the holder is being sprinkled.

As will be evident, the material discharged from the receptacle will be guided into the channels or depressions so as to constitute each of such depressions as separate feed troughs for the use of the insects. This feature is of considerable importance since it not only confines the toxic material in the depressions and permits dispersal thereof over a large area, but leaves between each set of adjoining troughs a large area upon which the insects may stand while partaking of the material. In this connection it may be noted that the insects are prone to partake only from the edge portions of the material, and thus it will be seen that with my invention a relatively large feeding area will be permitted with a small amount of the insecticide material. Preferably the receptacle is positioned well up on the standard and the latter is made long enough to insure a firm grip in the ground and yet provide for long feeding troughs between the receptacle and the surface of the ground. If desired a hole 24 may be provided in the end wall 9 of the receptacle to permit a stick to be inserted therethrough for stirring the contents and accelerating the activity of the mixture. This hole 24 may also serve as a means of ingress and egress for the insects to and from the receptacle. The troughs it will be noted are relatively deep and since the holder will be supported in a somewhat rearwardly inclined position, the insecticide in the troughs will in most instances remain in the bases or bottoms of the troughs. In this manner the raised or crest portions of the corrugations at the front side of the standard will to some extent serve as guards to help prevent children and pets who may brush thereagainst from reaching the insecticide at the base of the troughs. In this connection it will also be noted that, when the container standard is fully embedded in the ground, the protrusion of the receptacle from the standard helps to bar access to dissolved insecticide immediately below the receptacle. Preferably the upper corners of the standard are left sharp and pointed so as to deter tampering.

Where it is desired to use a relatively highly toxic insecticide, the material will preferably be made less soluble so that it will be confined entirely to the interior of the receptacle, access being then afforded to the material solely through the openings 19 and 20 and hole 24.

As shown in Figure 2, the tabs 18 are preferably clamped around the standard so as to crimp or offset the corrugated portion at the edges 17 and thus provide an interlocking attachment between the receptacle and standard both longitudinally and laterally. At the same time this form of connection permits detachment of the receptacle for refilling the same with fresh material, the detachment being effected by temporarily flexing the tongues 18 to release the grip on the standard. The form of connection for the receptacle is also advantageous in that it permits the attachment of a label plate 26 to the holder without the need of an extra operation, it being only required that the label plate be inserted under the tabs 18 while attaching the receptacle in position. It will be seen that with this form of attachment the portions of the label plate as well as that of the standard over which the tongues are folded, are offset and thus provide for interlocking engagement of the receptacle and label plate with the standard. Not only is this form of attachment desirable from a production standpoint, but it insures greater permanency in retaining the label plate in the holder, the retaining qualities being unaffected by the weather or continued application of water.

I claim:

1. In an insecticide holder, a supporting standard having a side formed with vertically extending corrugations, an insecticide receptacle having an open end and positioned on the standard intermediate the top and bottom thereof and with said end facing and substantially abutting said corrugations whereby passages to and from the interior of the receptacle will be defined at the upper and lower side portions of the receptacle, and means securing the receptacle to the standard in the position aforesaid.

2. In an insecticide holder, a supporting standard having a side formed with vertical corrugations extending substantially from top to the bottom thereof, an insecticide containing receptacle having an open end and positioned on said standard inwardly of said top and bottom and with the open end facing and substantially abutting said corrugations so as to define with and between said standard and the edges of the receptacle at the open end a plurality of inlet and outlet openings at the top and bottom portions of the receptacle respectively, and means detachably securing the receptacle to the standard in said position.

3. In an insecticide holder, a receptacle having end and side walls and an open end, a supporting standard having a side of a width substantially equal to and covering the open end of the receptacle, portions of said standard being formed to provide inlet and outlet passages for the insects to and from the receptacle, means to secure the receptacle to the standard comprising tongues extending from the sidewalls of the receptacle and folded around the rear surface of said side of the standard, a label plate positioned on said standard opposite the receptacle and between said rear surface and said tongues,

the portions of the standard and the label plate over which the tongues are folded being offset relative to the general plane of one surface of the standard to hold the receptacle and plate in interlocking engagement with the standard.

4. In an insecticide holder, a supporting standard in the form of an elongated vertical rectangular strip having sharp upper corners and formed with a plurality of vertical corrugations extending for the full length thereof, a receptacle of substantially the same width of the strip having end and side walls and an open end and being positioned on said standard with the open end abutting and covered by the strip whereby access openings to said receptacle will be defined between the sides of the receptacle and the strip, said receptacle being located on said strip in spaced relation to the upper and lower edges but in greater spaced relation to the lower edge, a label plate on said strip opposite to and on the side reversely of the receptacle, and fastening means securing the receptacle and plate to the strip.

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