Oct. 16, 1923. 1,471,109

D. S. DICK

HOG OILER

Filed Oct. 14, 1922

Fig. 1.

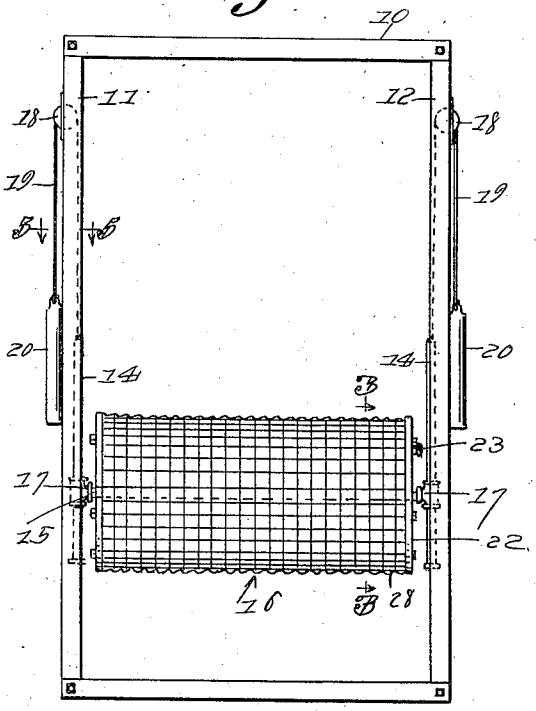
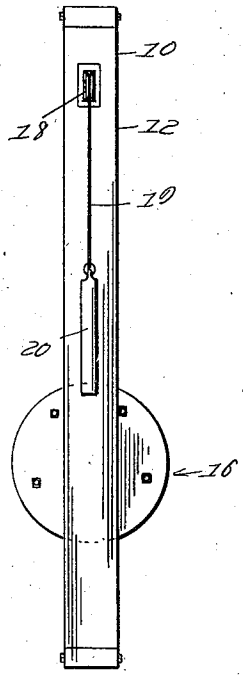


Fig. 2.



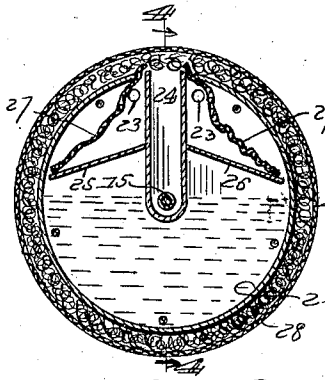


Fig. 3.

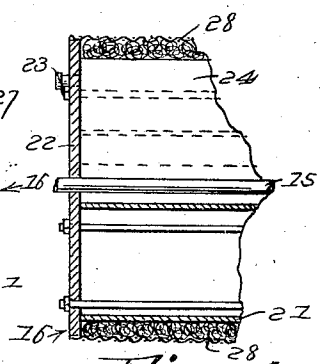


Fig. 4.

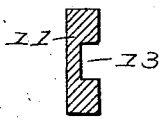


Fig. 5.

Inventor,
David S. Dick
By Frank A. Adderman
Attorney

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UNITED STATES PATENT OFFICE.

DAVID S. DICK, OF HAWARDEN, IOWA.

HOG OILER.

Application filed October 14, 1922. Serial No. 594,555.

To all whom it may concern:

Be it known that I, DAVID S. DICK, a citizen of the United States of America, and resident of Hawarden, in the county of Sioux and State of Iowa, have invented certain new and useful Improvements in Hog Oilers, of which the following is a specification.

This invention relates to an insecticide or like distributor, and particularly to a device intended to apply oil to hogs.

An object of this invention is to produce a device which will automatically supply the oil spreading or distributing swab or brush with oil, the said device being operative to accomplish this result as it moves under the influence of the action of the hog in traveling under the distributing device.

It is an object of this invention to produce a reservoir associated with the distributor, and so mounting the reservoir that it normally maintains a certain position from which it is moved by the action of the animal when he travels under the distributor; and the said invention further contemplates the provision of novel means for transferring the oil from the interior of the reservoir to the swab, means being provided to guard against an excess of oil on the distributor.

It is a further object of this invention to produce a distributor of the character indicated, associated with a mounting by which the distributor may rise and fall to increase or diminish the space thereunder, in order that it will accommodate animals of different sizes; and the said invention furthermore includes means for counterbalancing the distributor and the reservoir associated with it, in order that the said distributor will be held suspended with some space between it and the ground or floor with relation to which the distributor is mounted.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a front view in elevation of a device embodying the invention;

Figure 2 illustrates an end view thereof;

Figure 3 illustrates a sectional view on the line 3—3 of Fig. 1;

Figure 4 illustrates a sectional view on the line 4—4 of Fig. 3; and

Figure 5 illustrates a sectional view of a side of the frame on the line 5—5 of Fig. 1.

In these drawings, I have illustrated a rectangular frame 10 which may be supported in vertical position in any appropriate way, the sides 11 and 12 of the frame preferably having grooves 13 in their inner faces to produce guides for the rods 14 that support the axis 15 of the distributor which is generally identified by the numeral 16. For convenience in manufacture, each rod carries a T-coupling 17 to which the ends of the axis 15 are attached, and by this means, the distributor is mounted to move vertically in the frame.

Each side of the frame has a pulley 18 over which a flexible element 19 may operate, each of the said flexible members being provided with a weight 20 that counterbalances the distributor, and each cable has one end connected to one of the rods 14, as fully shown in Fig. 1.

The oil distributor comprises a tank 21 which is preferably cylindrical, one end 22 thereof being provided with filling nipples 23 in order that oil may be supplied to the tank.

The tank has a U-shaped housing 24, the lower portion of which embraces the axis 15. and this housing constitutes an anchorage for the plates 25 and 26 which extend on an incline therefrom and have their edges terminating near the wall of the cylinder at opposite sides of the axis. There is sufficient clearance between the ends of the plates and the wall of the cylinder to permit oil to flow over the edges of the plates when the cylinder is partially rotated, as it would be when a hog travels under the distributor. An absorbent material or wick 27 extends into engagement with each plate near its edge. and each of these wicks extends upwardly and terminates preferably beyond the cylindrical casing at the top. Wicks of this character extend preferably the full length of the cylinder, or there may be a plurality of wicks located throughout the length of the said cylinder, but the inventor does not wish to be limited in this respect. The exterior of the cylinder is provided with a padding or swab of absorbent material to which oil

is delivered by the wicks, and after the oil has practically saturated the absorbent material at the top, the oil will gravitate around the cylinder following the absorbent material, and that portion of the absorbent material at the bottom of the distributor will be so supplied with oil as to distribute it on the backs of hogs that may pass under the distributor.

The supply of oil on the distributor is automatically maintained by reason of the fact that each time a hog passes under the distributor, the said distributor will be partially rotated in order that the oil within the reservoir will be caused to flow over the edges of the plates, with the result just stated.

Owing to the fact that the oil is in the bottom of the cylinder, and that in constructing the device it will be made so that the center of gravity of the distributor will be below the axis 15, the cylinder will be maintained by gravity in the position in which it is shown in Fig. 3, and each time a hog passes under the distributor and releases it, the tank will resume its normal position.

A device embodying this invention has proven comparatively inexpensive and it has also proven highly efficient and satisfactory in use.

The absorbent material is preferably confined and held in place by a screening 28 which will permit oil to gain access to the hog through its meshes.

The plates constitute baffles to prevent the oil from flowing too freely to the wicks and also confine the oil, in order that the cylinder will always right itself to its normal position, as will be apparent.

I claim:

1. In a hog oiler, a frame, a distributor comprising a cylindrical member having an axis, means for supporting the axis for vertical movement, plates within the cylindrical member being inclined from points near the center toward the periphery and terminating in spaced relation to the inner wall of the cylinder, wicks resting on the plates and projecting through the cylinder at approximately the top thereof, and an absorbent covering for the cylinder with which the wicks communicate.

2. In a hog oiler, a reservoir comprising a cylindrical member, means for mounting the cylindrical member for partial rotation and vertical movement, baffle plates within the cylinder, means for supporting the plates with their outer edges in proximity to the wall of the cylinder, wicks resting on the plates, and an absorbent material covering the said cylinder with which the wicks communicate.

3. In a hog oiler, a cylindrical member, an absorbent covering therefor, means for supporting the cylindrical member for vertical movement and partial rotation, a housing within the cylinder, plates carried by the housing and having their edges terminating in proximity to the wall of the cylinder, and means for conducting oil by capillary attraction from the plates to the absorbent covering of the cylinder.

DAVID S. DICK.