H. D. DUCKHAM.

HOG OILER.

APPLICATION FILED SEPT. 5, 1918.

1,306,473.

Patented June 10, 1919.

2 SHEETS—SHEET 1.

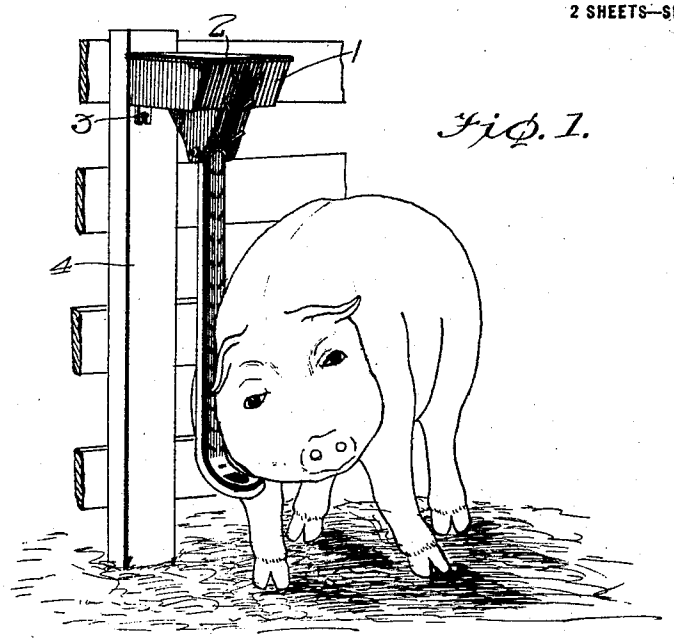


Fig. 1.

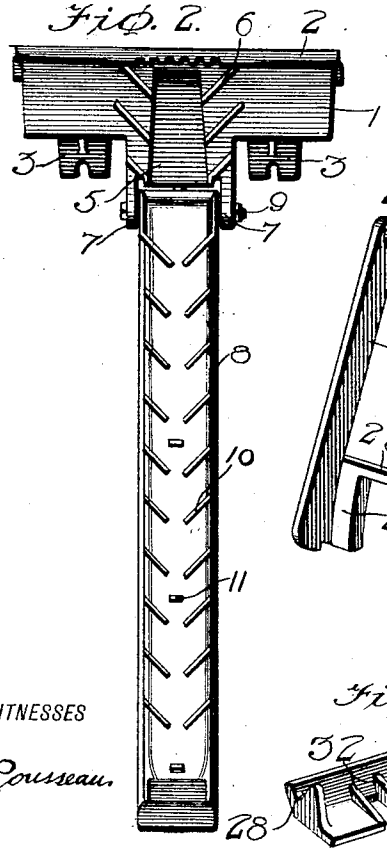


Fig. 2.

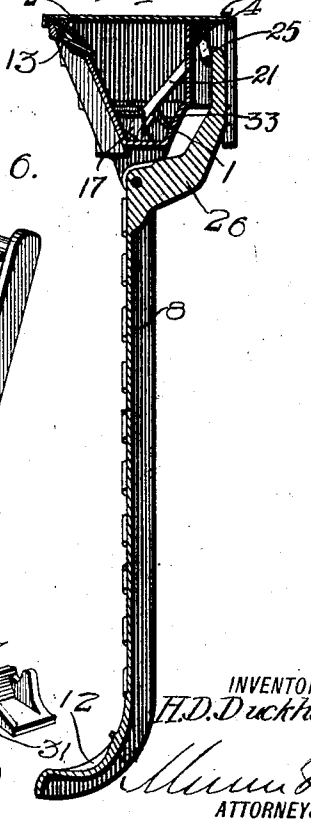


Fig. 3.

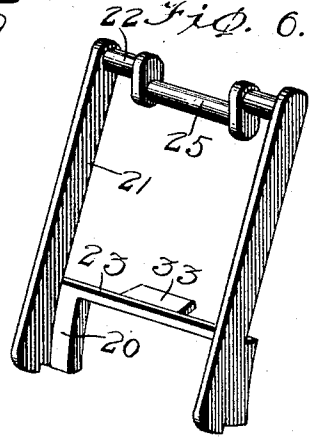


Fig. 6.

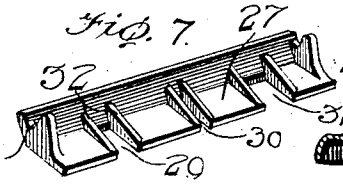


Fig. 7.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4.

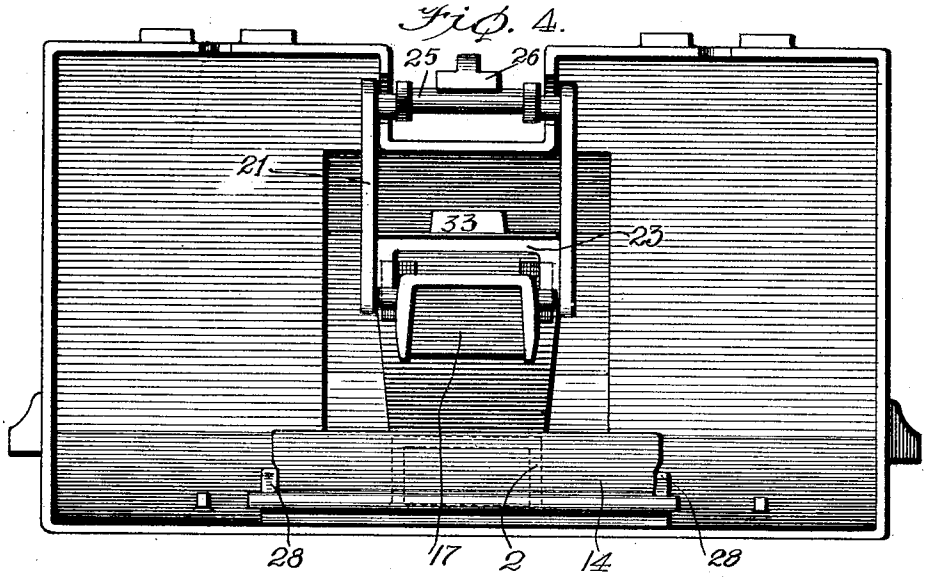


Fig. 5.

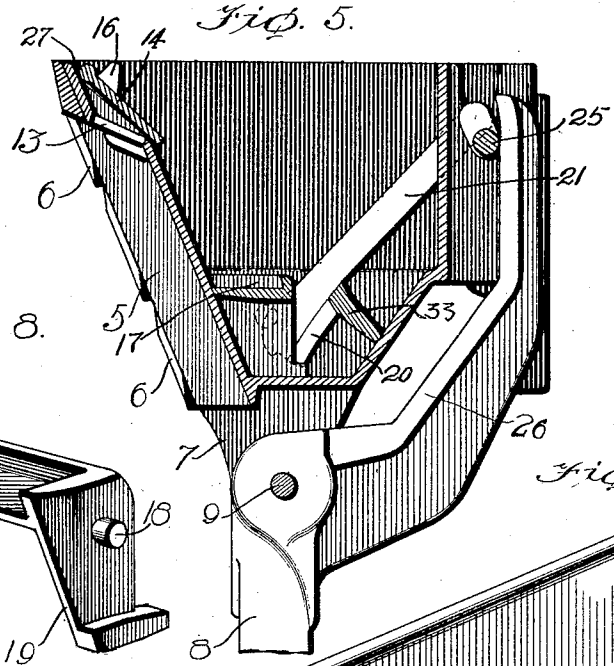


Fig. 8.

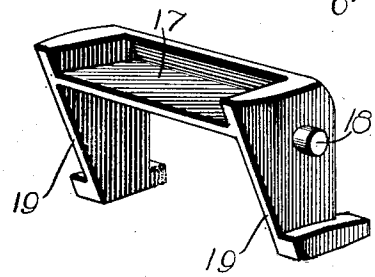
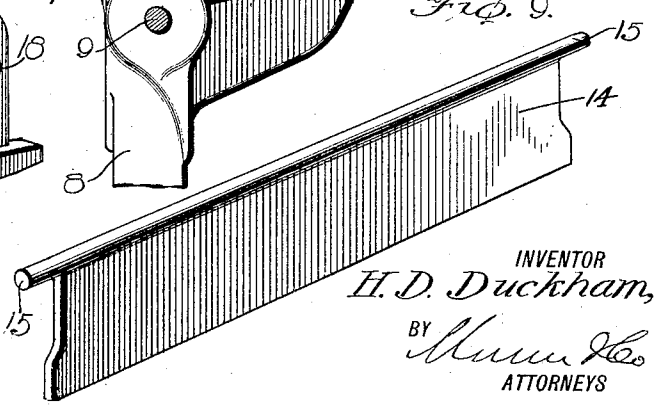


Fig. 9.



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UNITED STATES PATENT OFFICE.

HARRY D. DUCKHAM, OF KENTON, OHIO.

HOG-OILER.

1,306,473. Specification of Letters Patent. Patented June 10, 1919.

Application filed September 5, 1918. Serial No. 252,741.

To all whom it may concern:

Be it known that I, HARRY D. DUCKHAM, a citizen of the United States, and a resident of Kenton, in the county of Hardin and State of Ohio, have invented certain new and useful Improvements in Hog-Oilers, of which the following is a specification.

My invention is an improvement in hog oilers, and has for its object to provide a device of the character specified, wherein a container is provided for the oil, together with a depending rubbing bar mounted to swing with respect to the receptacle, and wherein means is provided in the receptacle controlled by the rearward movement of the rubbing bar for delivering a predetermined amount of oil to the rubbing bar, the rubbing bar having at its lower end a curved portion for engaging beneath the neck, flank, and fore legs of the hog to thoroughly oil the same.

In the drawings:—

Figure 1 is a perspective view of the improved oiler in use,

Fig. 2 is a front view,

Fig. 3 is a vertical section,

Fig. 4 is a top plan view of the cover removed,

Fig. 5 is an enlarged vertical section through the receptacle or tank,

Fig. 6 is a perspective view of a portion of the delivering mechanism,

Fig. 7 is a perspective view of the feed regulator,

Fig. 8 is a view of the delivering cup, and

Fig. 9 is a perspective view of the check valve or gate.

In the present embodiment of the invention, a suitable tank or container 1 is provided, the said tank or container being hopper shaped in cross section, as shown, and a cover 2 is provided for the receptacle, the said cover being detachably connected therewith. This receptacle has at its rear, depending lugs 3 which have openings for receiving bolts or the like to connect the receptacle to a fixed support 4, as, for instance, a fence, building or the like.

The front wall of the receptacle or tank has an inwardly offset portion at its center forming a vertical groove or recess 5, and ribs 6 are provided leading inwardly and downwardly toward the recess for conducting the oil to the recess.

At the recess, the front wall of the tank or reservoir is extended downwardly as shown more particularly in Fig. 2, and there are lugs 7 at each side of the extension, between which is pivoted the rubbing bar 8. This bar as shown is channel shaped, the opening of the channel being at the rear, and it is pivoted to the lugs by means of a bolt and nut 9.

The rubbing bar has a series of ribs 10 near each side edge on its front face, and the said ribs incline inwardly and downwardly toward the center of the bar, and there are also lugs 11 between the series of ribs. The lower end of the bar curves forwardly as shown, and there is a depression or recess 12 on the upper face of the curved portion for receiving and holding the oil. This curved end of the rubbing bar will engage beneath the neck of the hog, and under the fore and hind legs, to permit the entire body of the hog to be oiled.

An outlet opening 13 is provided for the oil at the top of the recess 5, and a gate 14 is mounted within this outlet, normally closing the same. This gate 14 has journal pins 15 at its ends, which are supported in the tank or reservoir in a manner to be presently described, and the gate normally depends over the outlet opening, and extends in rear of the same as shown more particularly in Fig. 5, so that the free edge thereof may be engaged by the delivering mechanism to be described to open the gate.

The delivering mechanism is a species of scoop mounted to slide on the rear wall of the recess 5, and having its front wall removed, so that it is closed at the front by the wall of the recess, and when it moves above this wall coming flush with the lower edge of the outlet opening 13, the oil can flow out at the cut-away wall into the recess.

The scoop has longitudinally extending journal pins 18 at its ends and depending lugs 19, and the journal pins rest upon guide flanges 20 on the sections 21 of a lifting lever. These sections are spaced rigidly connected plates, being connected at one end by a crank shaft, and at the other by a cross bar 23, the cross bar connecting the upper ends of the guide flanges.

The front edges of the depending lugs 19 are beveled to fit the rear wall of the recess, and slide against this rear wall. A crank shaft is behind an inwardly offset portion 24 in the rear wall of the tank or reservoir, and the crank 25 of the crank shaft is adapted to be engaged by a rearwardly and upwardly

extending arm 26 rigid with the rubbing bar.

When the rubbing bar is swung rearwardly, the crank is swung forwardly and the lever sections 21 are swung upwardly at their forward ends, lifting with them the delivering scoop 17 for the oil. The scoop is raised until its bottom is flush with the lower edge of the outlet opening 13 of the tank or reservoir, and the end walls engage the gate 14 and lift the same. At the moment when the oil scoop 17 lifts the gate 14, the cup will be tilted slightly to pour the contents thereof out from the outlet opening 13.

It will be noticed referring to Figs. 3, 5, and 7, that the gate 14 is mounted on a feed slide which regulates the amount of feed. This slide 27 is angular in cross section, and carries the lugs 28 at its ends in which the journal pins of the gate 14 are journaled. This slide has three notches or recesses 29, 30, and 31 in its rear edge, the said notches being of different widths to provide for different rates of feed. Either notch may be brought into register with the recess 5 by merely sliding the slide longitudinally of the tank or reservoir.

It will be evident that when the notch 29 is in register with the recess, that is, when the cup of oil is delivered through the notch 29, less oil will flow through the said notch than would flow through the notch 31, and more oil would flow through the notch 30. That oil which is not delivered through the notch will flow back into the container. This slide merely rests on the end walls of the recess 5. The valve 14 is supported by the slide in the notches 28.

Referring to Fig. 7, it will be seen that the slide has ribs or flanges 32 at each side of each notch, so that the oil that does not pass through the notch will be deflected back into the tank or reservoir.

The slide is held from movement down into the tank or reservoir by its engagement with the inner edge of the recess. In operation, the tank or reservoir is filled with oil to within about one-eighth of an inch of the outlet, and the cover is fitted into place. When the hog rubs against the rubbing bar as shown, the bar will be moved backward, the crank shaft will be oscillated, and the oil cup or scoop will be lifted with its contents to the outlet opening, where the oil will flow out down the recess wall and onto the rubbing bar eventually reaching the cup or recess 12 in the curved portion of the bar.

Only that portion of the oil in the scoop passing through a notch 29, 30, or 31 will pass onto the rubbing bar, the remainder of the oil being deflected back into the tank or reservoir. The oil can not leak, and there is no wastage. No oil can flow except when the rubbing bar is operated. Preferably the oiler is placed against a fence or building so that it can be engaged only from the front.

In addition to the oil which the hog gets upon itself from the rubbing bar, a trifle of oil is sprinkled onto the hog's back when the bar is swung rearwardly. The recess 12 catches and retains the oil in such position that the pigs themselves have access thereto, and they oil themselves.

Referring to Fig. 6 it will be noticed that the cross bar 22 has a rearwardly extending lug 33 which is adapted to rest upon the bottom of the tank or reservoir as shown in Fig. 3, to limit the downward movement of the levers 21.

I claim:—

1. A hog oiler, comprising a container having near the top of its front wall an outlet for the oil, a rubbing bar hinged to the container at the bottom thereof to swing forwardly and backwardly, the container having an oil conducting recess leading from the outlet to the rubbing bar and delivering thereto, means controlled by the rearward swinging of the rubbing bar for delivering a predetermined quantity of oil out at the outlet opening into the recess, and means independent of the oil delivering means for varying the amount of oil delivered.

2. A hog oiler, comprising a container having an outlet opening near the top of the front thereof, a rubbing bar hinged to the container to swing forwardly and rearwardly, said container having an oil conducting recess leading from the outlet to the rubbing bar, an oil cup within the container, means for moving said oil cup toward or from the outlet to deliver oil therefrom, means controlled by the rearward swinging movement of the rubbing bar for moving the first said means for moving, and a valve normally closing the outlet and opened by the lifting movement of the cup.

HARRY D. DUCKHAM.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."