

W. S. REID.  
TANK CLOSURE.  
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1,047,990.

Patented Dec. 24, 1912.

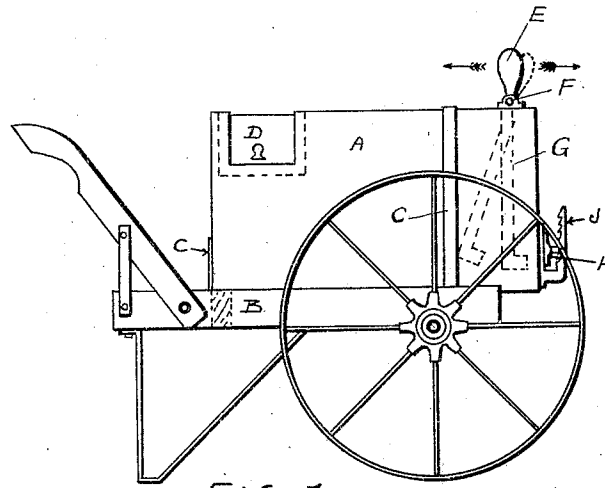


FIG. 1.

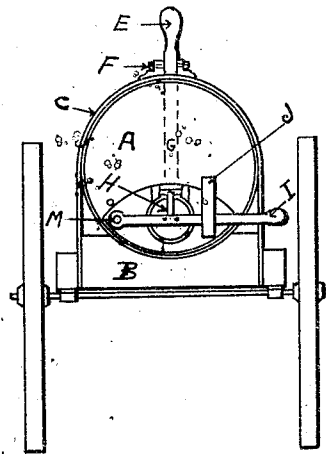


FIG. 2.

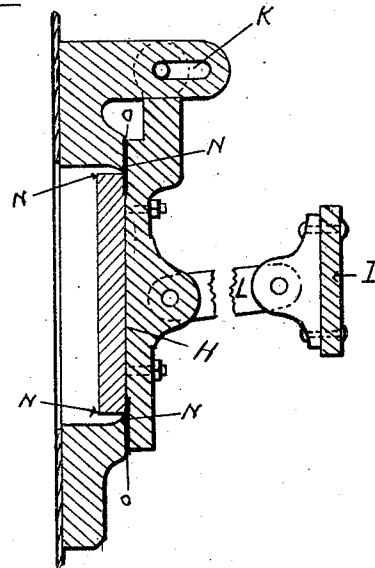


FIG. 3.

WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM S. REID, OF CENTER TOWNSHIP, EMMET COUNTY, IOWA.

## TANK-CLOSURE.

1,047,990.

Specification of Letters Patent.

Patented Dec. 24, 1912.

Application filed February 24, 1910. Serial No. 545,790.

*To all whom it may concern:*

Be it known that I, WILLIAM S. REID, a citizen of the United States, residing in Center township, in the county of Emmet and State of Iowa, have invented a new and useful Tank-Closure, of which the following is a specification.

This invention relates to improvements in swill or slop tanks and receptacles, so as to have the same odorless and sanitary, portable, and easily emptied of contents.

The objects of my invention are first, to provide a swill or slop tank and receptacle that will not emit obnoxious or unhealthful odors or gases; secondly, a receptacle for swill, slops, table refuse and other waste matter that will not attract flies, insects and other germ carriers; thirdly, a receptacle that will not slop or spill in the moving of liquids from one place to another, and that may be easily emptied and disgorged of its contents without spattering or soiling the operator or the surfaces about it, and to provide a neat and clean receptacle for slops and waste matter at the kitchen door or other place where it is convenient and desirable to have a receptacle for slops and waste matters for the accumulation thereof and moving it away; fifthly, especially to provide farmers and the like with a clean and sanitary manner of collecting slops and waste matter at the kitchen or other places of making and for the removal of same to place of consumption or disposal.

Still further objects are to simplify and improve the construction and operation of the devices for the handling of slops and refuse matter.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of invention; it being, however, understood, that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

From the drawings it will be seen that the invention is a closed tank of sheet metal or

other material, adapted for use in receiving kitchen slops or other waste and retaining same air tight and without leakage, free from flies and other insects and preventing the escape of noxious odors and gases from the contents of the tank until such times as it may be desired to empty any of the contents of the receptacle, which is done by opening the valve on the end of tank which is operated from the exterior of the tank by a lever. And that the removal of any solid or compact substance or settlings is assisted by an ejector swinging on the inside of the receptacle worked by a lever or handle projecting out of the top of the receptacle.

In the drawings: Figure 1 represents a side elevation or view of the mounted tank. Fig. 2, represents a front end elevation or view of mounted tank. Fig. 3, represents a sectional view of valve when closed.

In Figs. 1 and 2, (A) is a metal or wood tank, or tank of other material supported on a frame (B) and secured by means of straps or rings (C). The frame is mounted on wheels and provided with handles.

In the manner of operation, the valve H is closed by a downward movement of the lever I and securely locked by means of a notched bar J coming in contact with the notched edges of the lever.

In the top of the tank is an oblong opening, along the inside edges of which are grooved tracks or guides. The grooved surfaces of said tracks are toward the opening. In the two parallel tracks on the long-sides of the opening slides a lid to the tank, one end of which fits in a grooved stop at the narrow end of the opening, when the slide is shut, and the other end of which extends out beyond the edge of the opening and slides over the outside top surface of the tank when the slide is opened. The slide is air tight and water tight when closed. The contents of the tank are poured into the above described opening.

In one end of the tank is cut an opening. On the same end, on the outside of the horizontal surface is fastened or riveted over the opening a cast iron piece supplied with a circular valvular opening coinciding with the said opening in the end of the tank. The lid or valve II to the opening is hinged and suspended over the opening by axles or pins revolving in elongated sockets or eyes K, in two cast iron hinge posts or projec-

tions from the cast iron piece and over the said round opening. The underside of said valve is provided with a raised circular plane that just fits the opening in the casting. Around this raised circular plane and on the edge of the valve H is a rubber or leather gasket which makes the valve fit watertight. The round opening and valve are provided with sharp cutting edges N which prevent any fibrous or solid matter in the valvular opening from causing the valve not to shut tightly. To a spindle or pin M located at a point to the lower left of the round opening in the cast iron piece one end of a lever I is fastened which lever extends horizontally across the round opening and parallel to the end of the tank and a few inches out from the tank. On the opposite side of the round opening from the one where the lever is fastened, the lever I works up and down between the tank and a nearly perpendicular shaft J which rests on a cast iron shoulder. Said shaft J is provided on the inside with notches or teeth and slants slightly toward the tank. The lever I and the valve lid H are connected by a small bar or connecting rod L as shown in Fig. 3 which is hinged or pinned to the valve lid and to the lever. The surface of the lever I which comes in contact with the notched bar J is also notched, so that when the lever is pressed down in the process of closing the valve it exerts a pressure on the connecting rod which being longer than the space between the valve lid and the lever forces the valve H shut and the lever I is forced against the notched bar J, the notches on the lever I and the notched bar J securely locking the lever which locking process is assisted by the inwardly inclined position of shaft J. As lever I is being forced downward exerting a pressure through connecting rod L on valve lid H, the pins or axles supporting valve H and revolving in elongated sockets K are caused to move outward in sockets K and away from the tank thus allowing valve H just before being closed to hang on its hinges perfectly parallel to the round opening in the cast iron piece and then by the final pressure on the lever be

pushed accurately in place in the round valvular opening.

In the top of the tank near the end containing the valvular outlet, is a small aperture in which is swung on an axle or pin F a rod E G, part of which G is inside of the tank and the remainder E outside of the tank. The portion of this lever within the tank (indicated by dotted lines in Fig. 1,) is provided at the end with tines or prongs so that when the end projecting out of the tank is pushed back and forth, the forked end crushes and pushes through the valvular opening any solid substance that might have collected near the outlet to the tank.

What I claim as my invention and desire to secure by Letters Patent is:

1. The combination with a receptacle having a discharge opening, of a closure for said opening, ears having elongated slots, trunnions carried by said cover mounted in said slots and adapted to reciprocate and oscillate therein, a locking lever pivoted to one side of said opening, a link pivotally secured at its respective ends to the cover and the lever, ratchet teeth on said lever near its free end, a locking bar on the receptacle provided with teeth to intermesh with the teeth of said lever, the connection between the lever and cover being such that the movement of the lever will first reciprocate and then oscillate the cover.

2. The combination with a receptacle having a discharge opening, ears carried by the receptacle having elongated slots constituting trunnion bearings, a cover, trunnions on the cover, said cover mounted on the ears by means of its trunnions engaging the slots in the ears, a link pivotally mounted on the cover at one end and free to swing, and a lever pivotally mounted on said receptacle and pivotally connected to the other end of said link, whereby the cover is reciprocated and oscillated by the lever through said link.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM S. REID.

Witnesses:

THOMAS E. SCOTT,  
JOY R. HORSWELL.