

D. Finger,

Rendering Lard.

No. 100,063.

Patented Feb. 22. 1870.

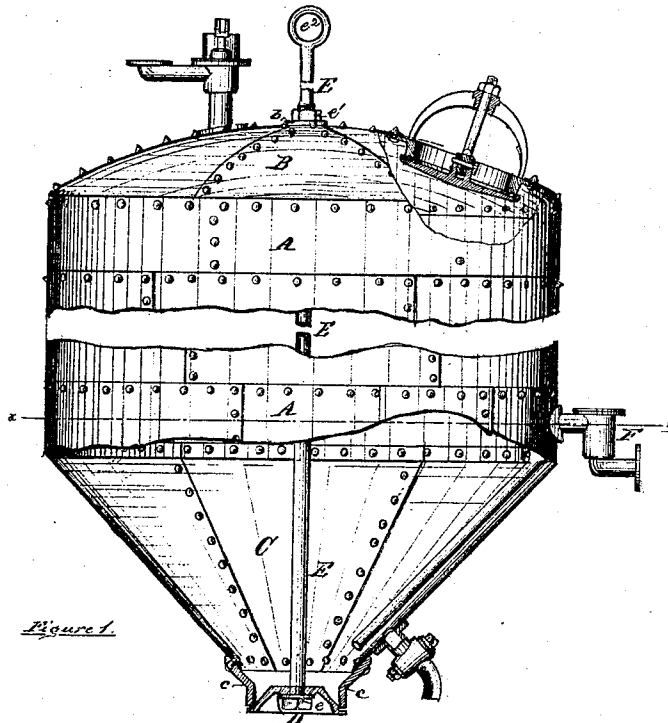


Figure 1

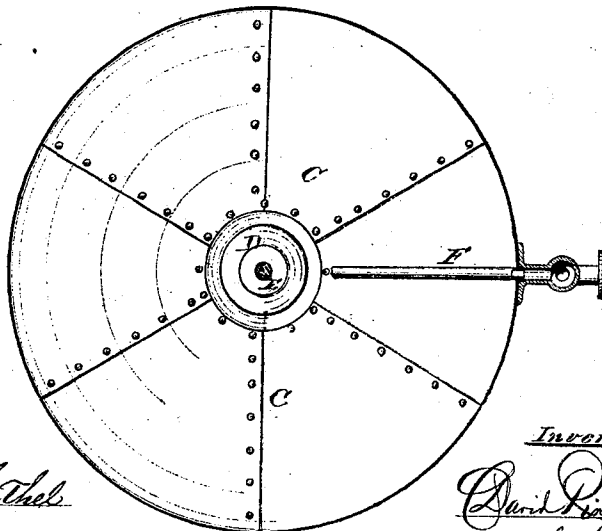


Figure 2

Witnesses:

William H. Hertel

Robert Burns

Inventor:

*David Finger by
his atty
Hertel*

United States Patent Office.

DAVID PINGER, OF ST. JOSEPH, MISSOURI.

Letters Patent No. 100,063, dated February 22, 1870.

IMPROVEMENT IN TANKS FOR RENDERING LARD.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, DAVID PINGER, of St. Joseph, in the county of Buchanan, and State of Missouri, have made certain new and useful Improvements in Tanks for Rendering Lard and Similar Matter; and do hereby declare the following to be a full and true description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

It is known that in the use of rendering and similar vessels there is a gradual accumulation of refuse matter therein, which it becomes necessary to discharge. In the ordinary form of such tanks as now in use, it is necessary to enter the same to effect a satisfactory and sufficient cleansing thereof, and owing to the delay occasioned in awaiting the condensation of the steam and the cooling of the tank stuffs, workmen are compelled to enter said tanks while the same are still greatly heated and charged with steam.

To avoid said disadvantages, and generally to form an improved tank for use as aforesaid, this invention relates to constructing a conical or similar inclined bottom or base in connection with the usual cylindrical tank-body, and said invention relates also to the adaptation of a proper lid or cap at the base of the cone or inclined hopper-shaped end to cover the effluent or discharge-opening. Lastly, said invention relates to the manner of arranging the usual steam-pipe in said tank, so that the distribution of steam and heat shall be uniform, by carrying said steam-pipe to the lower end of the hopper base, all of which will hereinafter more fully appear.

To enable those skilled in these arts to make and use my said improved tank, I will now more fully describe the same, referring herein to the accompanying

Figure 1 as a sectional elevation, and to

Figure 2 as a sectional plan of a rendering-vessel in one of its ordinary forms.

I form my said vessel of the usual cylindrical shell A, and in the usual manner.

This has a proper top plate, B, in which the blow-off valves and a man-hole will be arranged in the usual manner.

With the shell A is connected the conical base C, and this has at its bottom the seat-plate c, against which the cap D rests.

All parts are joined by rivets or bolts or packing material in a steam-tight manner.

In order to hold the cap D up to its seat-plate firmly, and, at the same time, to form a strong connection between the base and top plate of the tank, a bolt-rod, E, is arranged, passing the cap-plate D with a suitable nut or head, e, and extending through the top plate B.

When said rod passes the top plate, a reinforcing-plate, C, may be used, and a nut, e', will then draw up tightly on the outer flange of the plate B, thus causing the rod E to act by its tension as a connecting-bar between the tank-ends, as aforesaid.

Beyond the thread needed for the nut e', the rod E is cut down to smaller diameter and ends in a hook, e².

In cleansing the tank it is then necessary only to release the nut e' of its bearing, when the rod E and cap D will drop down as far as may be necessary to discharge the tank-stuff at the effluent opening formed by the bore of the seat-plate c.

The interior of the tank may be then subjected to a more perfect cleansing by a suitable hose and water, and thereupon by drawing up the rod E, (by block and tackle or other hoisting apparatus, attaching to the hook e²;) the steam-tight connection of all parts may again be restored.

To admit steam, as is necessary in the usual rendering process, a suitable flange and joint-casting is attached to the shell A, and the steam-pipe F connecting therewith is placed to rest on the base C, so as to discharge at the base of the tank at the point of its least area. The steam will, therefore, in rising, distribute over the entire section of the vessel A in a uniform manner.

By thus introducing steam near the apex of the cone base, the proper distribution is effected without the usual perforated coils of pipe and perforated false bottoms, which in themselves are an impediment, greatly increasing the labor of cleansing the ordinary tanks.

The usual draw-off cocks and valves are placed on the tank as ordinarily, so as to rack off the lard or other substance, a further description of these devices not being deemed necessary, since my said vessel does not, in its usual application, differ herein from those in ordinary use.

Having thus fully described my said invention,

What I claim, is—

1. The arrangement of a conical or other inclined bottom C with the body A of a tank, and the arrangement therewith of a seat-plate, c, cap D, tie-rod E, all substantially as set forth.

2. The arrangement of the steam-pipe F, to deliver steam near the apex of the inclined bottom C in a rendering-tank, substantially as set forth.

In testimony whereof, I have hereunto set my hand in the presence of—

DAVID PINGER.

Witnesses:

W. M. DIXON,
W. B. JOHNSON.