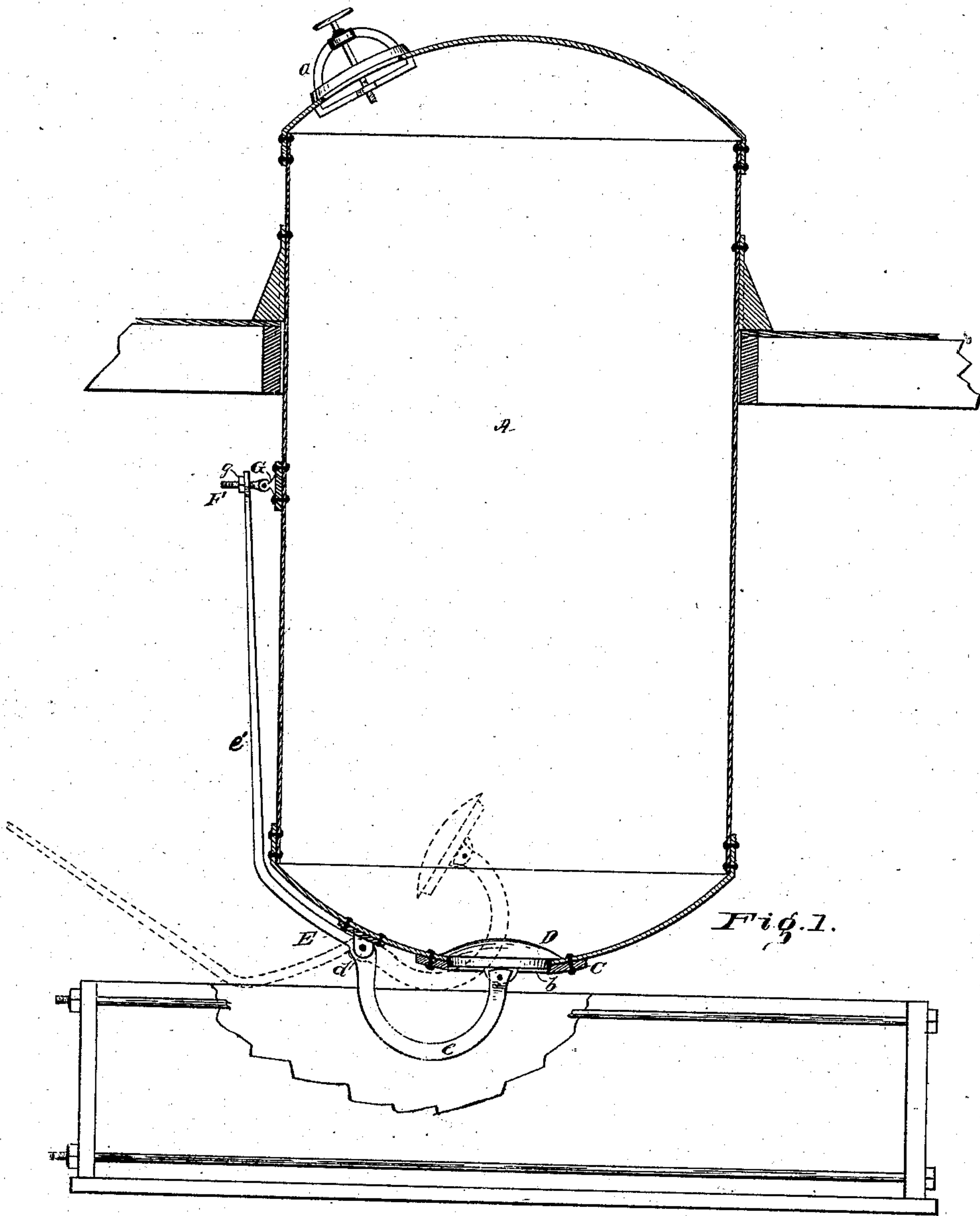


(No Model.)

W. SPIEGEL.  
RENDERING TANK.

No. 269,969.

Patented Jan. 2, 1883.



Attest:

*E. R. Hill.*

*J. M. Strubli.*

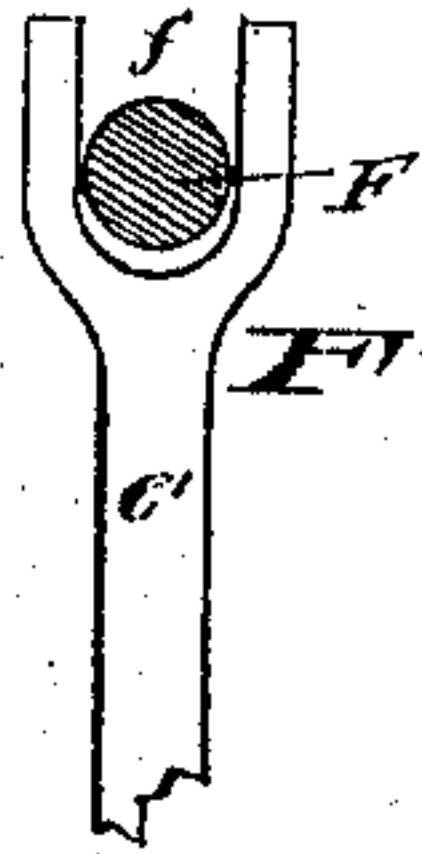


Fig. 2.

Inventor:

*William Spiegel*



# UNITED STATES PATENT OFFICE.

WILLIAM SPIEGEL, OF NEWPORT, KENTUCKY, ASSIGNOR TO McILVAIN & SPIEGEL, OF CINCINNATI, OHIO.

## RENDERING-TANK.

SPECIFICATION forming part of Letters Patent No. 269,969, dated January 2, 1883.

Application filed August 19, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM SPIEGEL, of Newport, Campbell county, Kentucky, have invented certain new and useful Improvements in Rendering-Tanks, of which the following is a specification.

My invention relates particularly to means for emptying the tank; and its object is to provide a construction and arrangement of the valve closing the outlet-orifice and its operating mechanism that will enable the operator to operate this valve by means located wholly without the tank, and to lift the valve away and to one side of the outlet, thus permitting a free escape of the contents of the tank. The arrangement of valves now employed is such that they are lifted by rods, cords, or chains of various descriptions passing through the tank, and these valves so lifted cannot be moved to one side of the outlet, and therefore present an obstruction to the passage of the contents of the tank. My invention obviates all of these difficulties, as will be seen from the following description and drawings, in which—

Figure 1 is a central vertical section of a tank with my invention attached thereto. Fig. 2 represents the upper end of the lever for operating the valve.

A is a tank, constructed of iron, copper, or other material, and after the usual form for constructing such tanks. This tank is supported in the usual manner, and is provided with the ordinary man-hole and cover, *a*, through which the fat to be rendered is introduced to the tank. At the bottom of the tank, preferably at its longitudinal center, is an opening, *b*, through which all or a portion of the contents of the tank are removed after they have been subjected to the proper treatment. Surrounding this opening *b* is a ring or collar, *C*, riveted to the bottom of the tank, and made sufficiently heavy to strengthen the bottom around the opening. A valve or cover, *D*, is provided, shaped to fit snugly into the opening *b*, the latter being slightly beveled, as shown, and the valve being tapered to correspond with such bevel, the approximating surfaces of the valve and opening being ground to insure a perfectly-tight joint. Outside of the tank is a bent lever, *E*, pivoted to a bracket,

*d*, riveted or otherwise secured to the bottom of the tank. This lever *E* consists of a short curved arm, *e*, to the end of which the valve *D* is secured, and a long arm, *e'*, extending up the side of the tank, and by which the valve is operated. The connection between the end of the arm *e* and the valve *D* is not rigid, but is such as to allow of a slight vibration of the valve on the end of the arm, to allow the valve to be perfectly adapted to the opening *b*. The upper end of the arm *e'* of the lever *E* is forked, as shown in Fig. 2, being provided with a notch, *f*, adapted to receive a hinged bolt, *F*, one end of which is hinged or pivoted to a bracket, *G*, secured to the side of the tank opposite to the end of the lever. The outer end of the bolt *F* is provided with a screw-thread, onto which is screwed a nut, *g*.

The operation of my invention is very simple, and will be readily understood from the foregoing.

When the valve is closed the various parts occupy the position shown in Fig. 1, the bolt *F* being dropped into the notch *f* in the end of the arm *e'* of the lever, and the nut *g* being screwed up tightly against the lever, thus holding the valve *D* tightly in position. When the tank is filled and the valve closed there is little or no strain on the lever *E*, as the pressure of the contents of the tank on the valve tend to keep it tightly closed. When, now, it is desired to empty the tank, the nut *g* is unscrewed and the bolt *F* raised out of the notch *f* and the arm *e'* of the lever is depressed, and by this means the curved arm *e* and the valve *D* are raised, and by reason of the shape of the arm *e* the valve is not only raised, but is also carried to one side of the opening *b*, occupying the position shown by dotted lines in Fig. 1, being entirely away from the opening.

The particular curvature of the arm *e* may be somewhat varied, and thus, if desired, the valve may be carried farther away from the opening than shown in the drawings.

It will be seen that by this construction I provide a convenient and perfect means for operating the valve, and that no obstacle is presented to the free escape of the contents of the tank.

Below the tank *A* is located the usual slush-box, *H*.



If desired, some other device than that shown may be used for securing the end of the lever E to hold the valve in position.

Various devices may be employed for heating and rendering the fat in the tank; but I have shown no such means, as they form no element in my present invention.

Having thus described my invention, what I claim as new and of my invention, and desire to secure by Letters Patent, is as follows:

1. A rendering-tank provided with an outlet-orifice, in combination with a valve located within the tank for closing said orifice, and means for lifting said valve and carrying it to one side of the orifice, said means being connected to the outer face of the valve, and when the latter is closed being located entirely without the tank, substantially as and for the purposes specified.

2. The tank A, provided with opening *b*, in combination with the valve D, located within the tank and connected to one end of the bent lever E, located without the tank and pivoted at some point, as *d*, substantially as and for the purposes specified.

3. The valve D, located within the tank A, in combination with the bent lever E, pivoted at *d* to the tank, and consisting of the short curved arm *e*, to which the valve is connected, and the long operating-arm *e'*, substantially as and for the purposes specified.

WILLIAM SPIEGEL.

Attest:

JOHN J. MOLLOY,  
J. WM. STREHLI.