

(No Model.)

H. RALL.

LARD AND OIL RENDERING TANK.

No. 318,503.

Patented May 26, 1885.

Fig. 1.

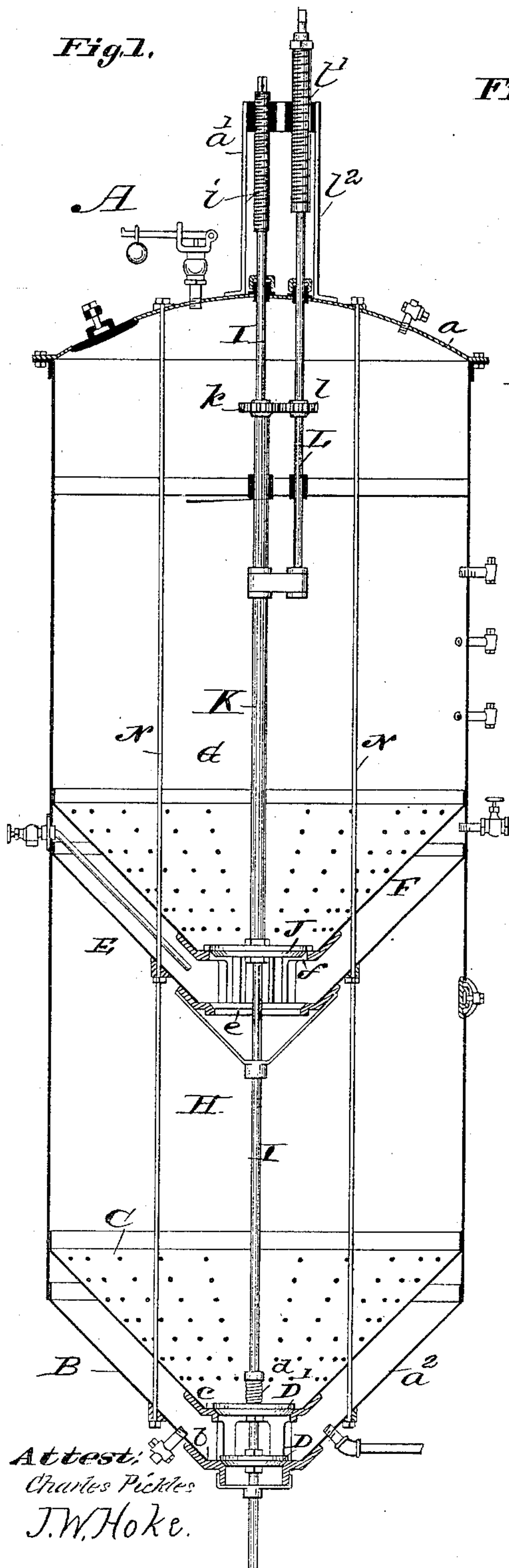


Fig. 2.

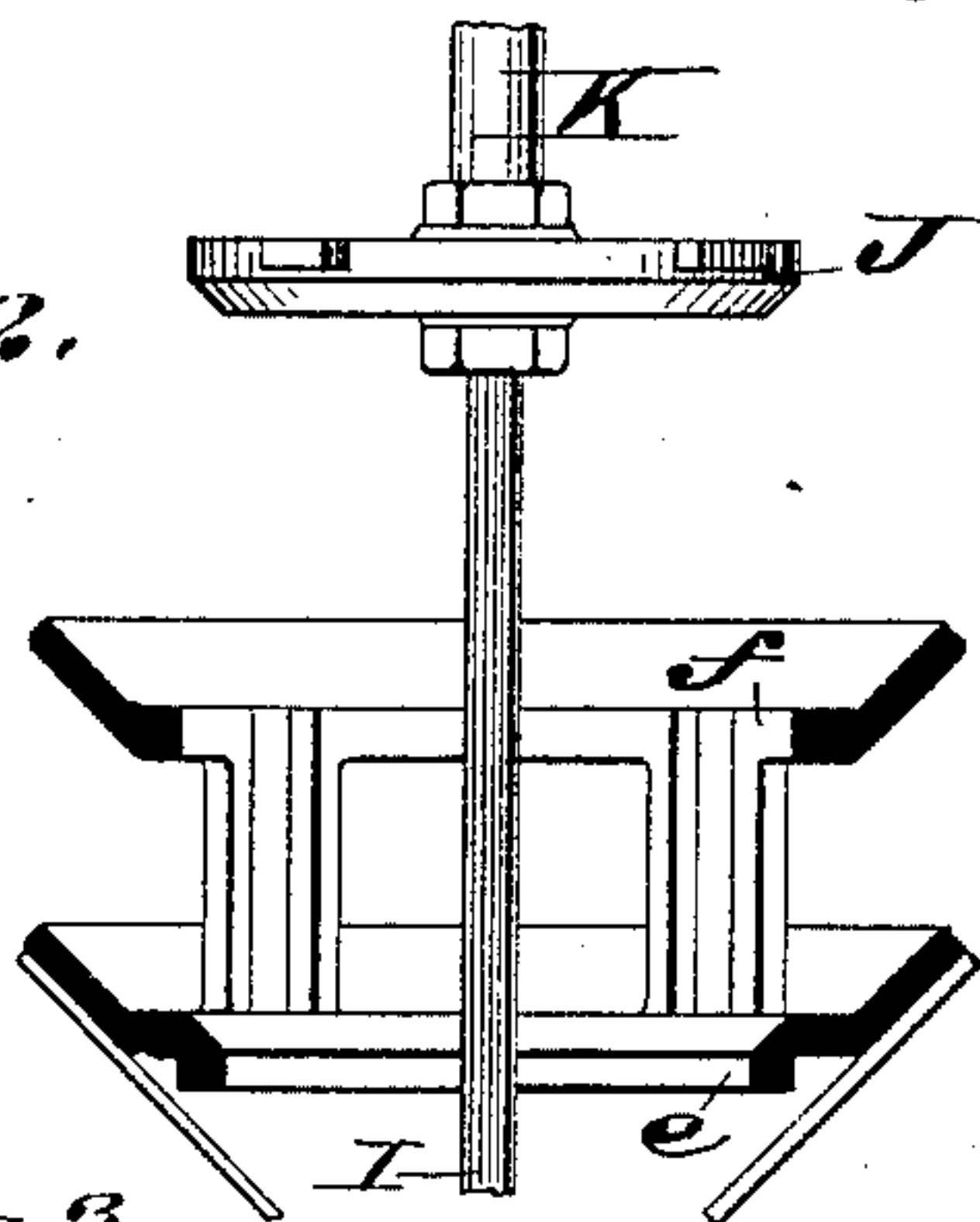


Fig. 3.

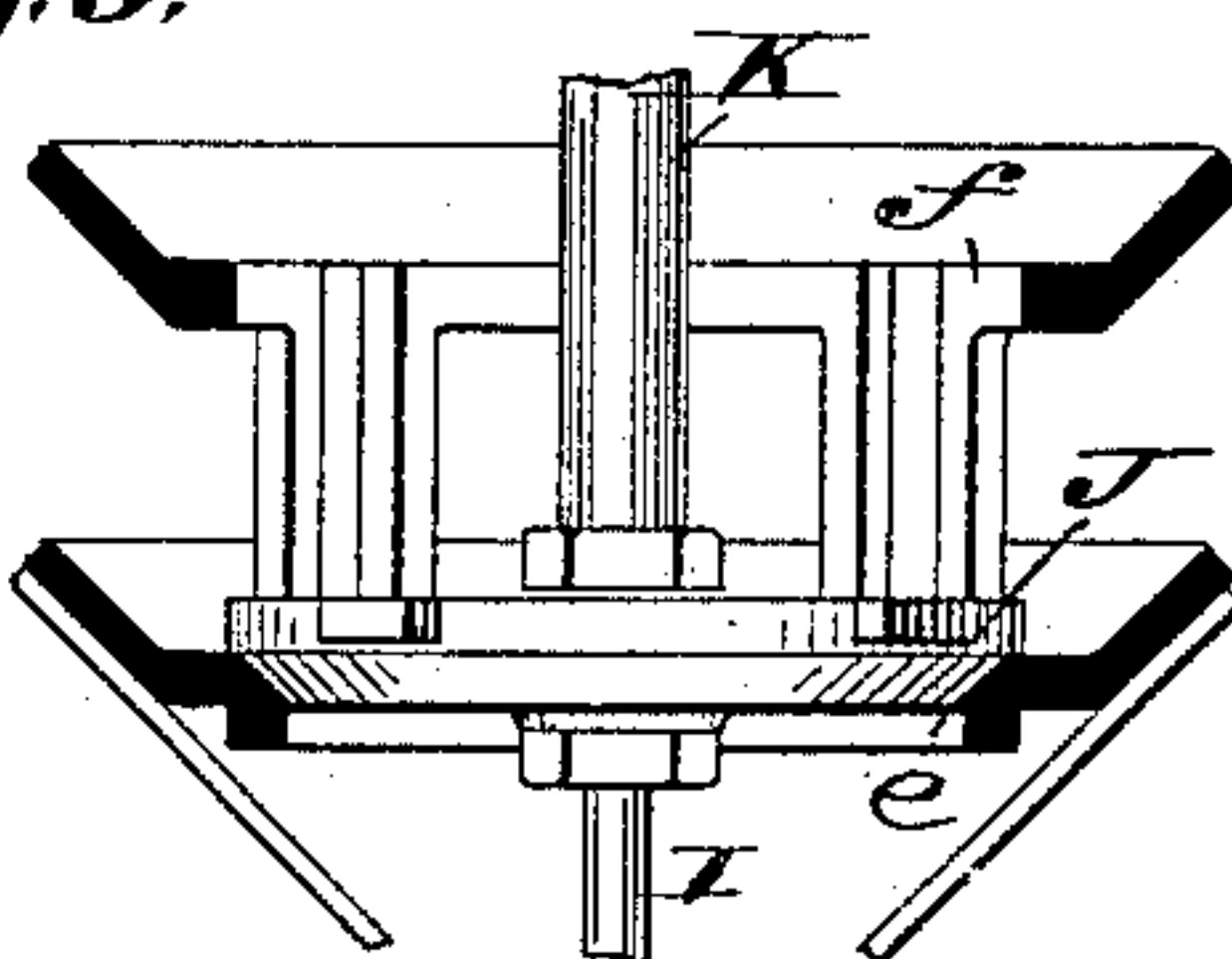


Fig. 4.

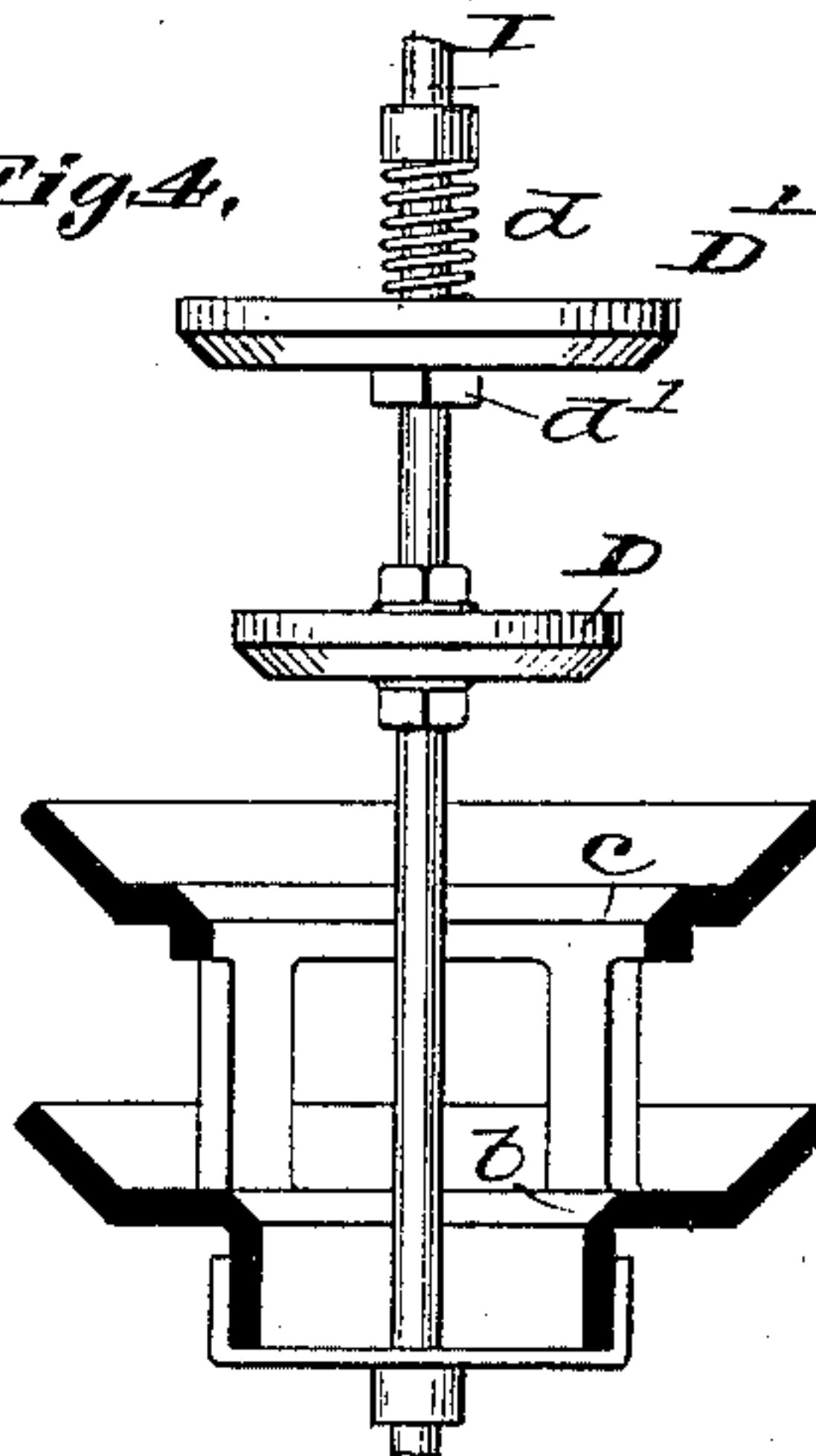
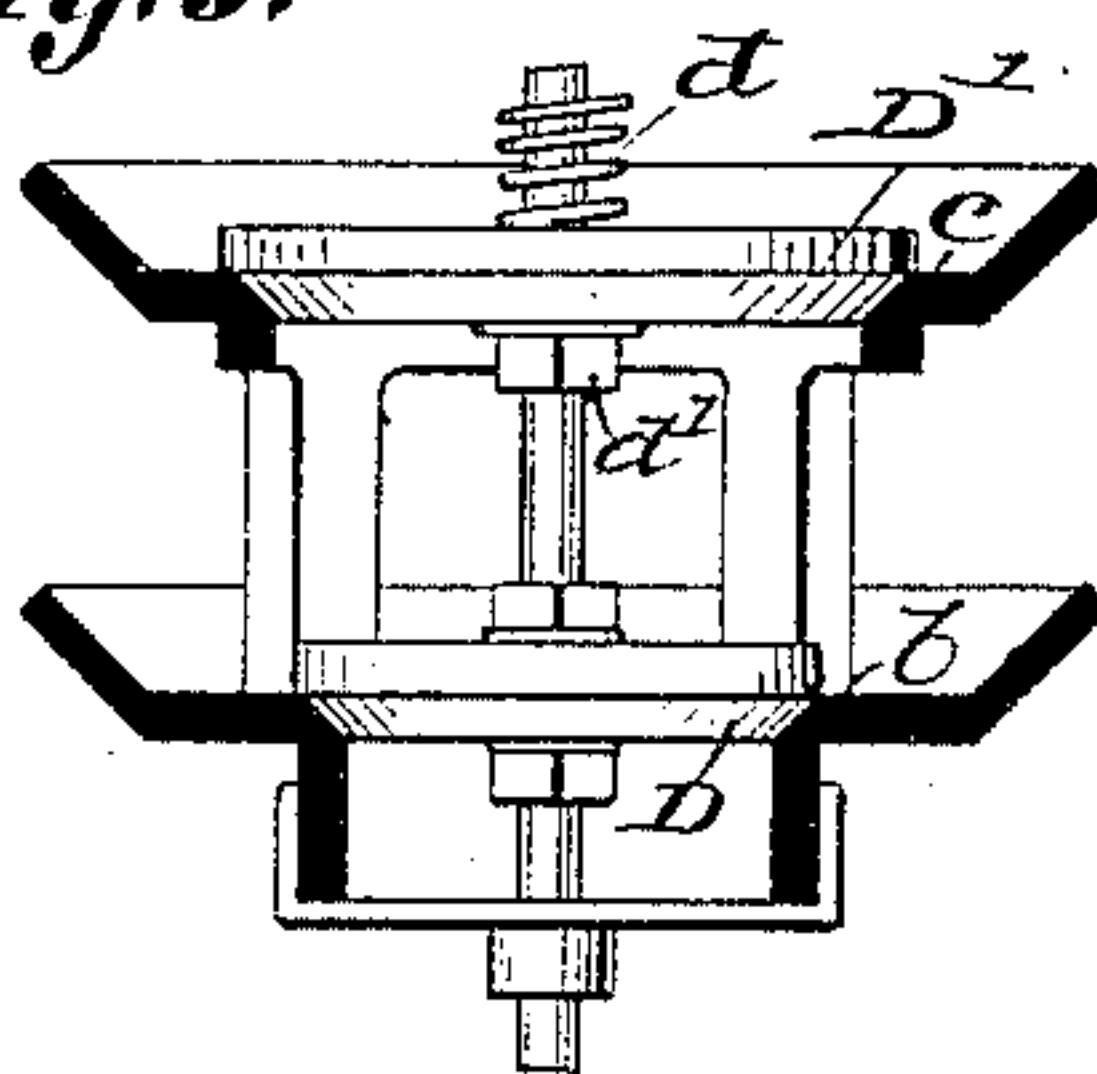


Fig. 5.



Attest:
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UNITED STATES PATENT OFFICE.

HENRY RALL, OF ST. LOUIS, MISSOURI.

LARD AND OIL RENDERING TANK.

SPECIFICATION forming part of Letters Patent No. 318,503, dated May 26, 1885.

Application filed September 10, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY RALL, of St. Louis, Missouri, have made a new and useful Improvement in Lard and Oil Rendering Tanks, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a vertical section of a tank in which the improvement is embodied; Fig. 2, a view of the valve and valve-seat used in separating the upper and lower compartments of the tank, the valve being shown in side elevation and unseated, and the valve-seat being shown in vertical section; Fig. 3, a similar view of the valve and valve-seat, the valve being seated; Fig. 4, a view of the valve and valve-seat at the lower end of the tank, the valve being unseated; and Fig. 5, a view of the parts shown in Fig. 4, the valve being seated.

The same letters of reference denote the same parts.

I have heretofore made improvements in lard and oil tanks, one of which related to the construction at the lower end of the tank, and is described in Letters Patent of the United States granted me January 8, 1884, No. 291,535, and the other of which improvements related to the means for dividing the tank into compartments, and is described in a pending application for Letters Patent.

In the constructions referred to, the valve-rod used in operating the valve at the lower end of the tank also serves as a tie-rod to connect the upper and lower ends of the tank when the valve is seated. Such a construction, I find, is not wholly satisfactory. The valve opens downward from the tank, and in closing it the valve is liable to be strained. To obviate this objection, and to provide a lard and oil tank embodying the features of the constructions above referred to with means by which the upper and lower ends of the tank can be stayed without causing any strain upon any of the valves, is the aim of the present improvement.

A represents a tank having the improvement, and, aside from the improvement, being such a tank as is shown in the constructions above named—that is, the tank at its

lower end has an outer bottom, B, closed, saving the valve-seat *b* and an inner perforated bottom, C, having the valve-seat *c*, and in connection with this double bottom there is a double valve, D D', the part D of which seats at *b* and the part D' of which seats at *c*, and at or near its center the tank, by means of the closed bottom E, having the valve-seat *e*, and the perforated bottom F, having the valve-seat *f*, is divided into the compartments G H, all of which features are substantially like those previously in use, with this difference, the lower valve, D D', in unseating rises into the tank, in place of dropping outward therefrom. I represents the rod to which the valve D D' is attached. It passes upward through the tank and to above the roof *a* of the tank, and by any suitable means therefor the rod and valve can be lifted and lowered, as indicated by the various positions of these parts shown, respectively, in Figs. 1, 4, 5. In the present instance the rod I is threaded at *i*, and the threaded portion is adapted to engage in the bearing *a'* upon the roof of the tank. The valve J, used in closing the passage between the compartments G H, is attached to the tubular stem K, and the rod I passes upward through the stem K, as before, and the stem is provided with the gear *k*, which engages with the gear *l* on the rod L, and the rod L is connected with the rod I by means of the arm M, and the rod L passes upward through the roof of the tank, and is threaded at *l'*, and its threaded portion is adapted to engage in a bearing, *l''*, upon the tank-roof, and the valve J thereby adapted to be lifted and lowered and rotated, as indicated by the various positions shown, respectively, in Figs. 1, 2, 3, substantially as in the previous construction. The tank, however, is stayed vertically by means of the stay-rods N N, which are extended from the top *a* to the bottom *a''* of the tank, between its center and side, and are permanently attached in their positions. Being entirely independent of the valve-rod or any other movable part of the tank, the stay-rods can be tightened to suit the strain upon the ends of the tank, and the valve D D' does not need to be strained, as is the case when its rod is used also as a

stay-rod. The valve D D' in the present instance also seats with the pressure, and therefore can more readily be kept tight.

The part D' of the double valve D D' need not be fast upon the rod I—that is, the nut *d'* might be dispensed with—in which case the spring *d*, when the valve is unseated, presses the part D' downward, and the part D' may drop and rest upon the part D.

I claim—

1. The herein-described lard and oil tank A, having the stay-rods N N, the valve D

D', and the valve-rod I, said stay-rods and said valve-rod and valve being independent of each other, substantially as described. 15

2. The lard-tank A, having the upper and lower compartments, G H, the valves J and D D', the rod I, and the stay-rods N N, substantially as described.

HENRY RALL.

Witnesses:

C. D. MOODY,

J. W. HOKE.