

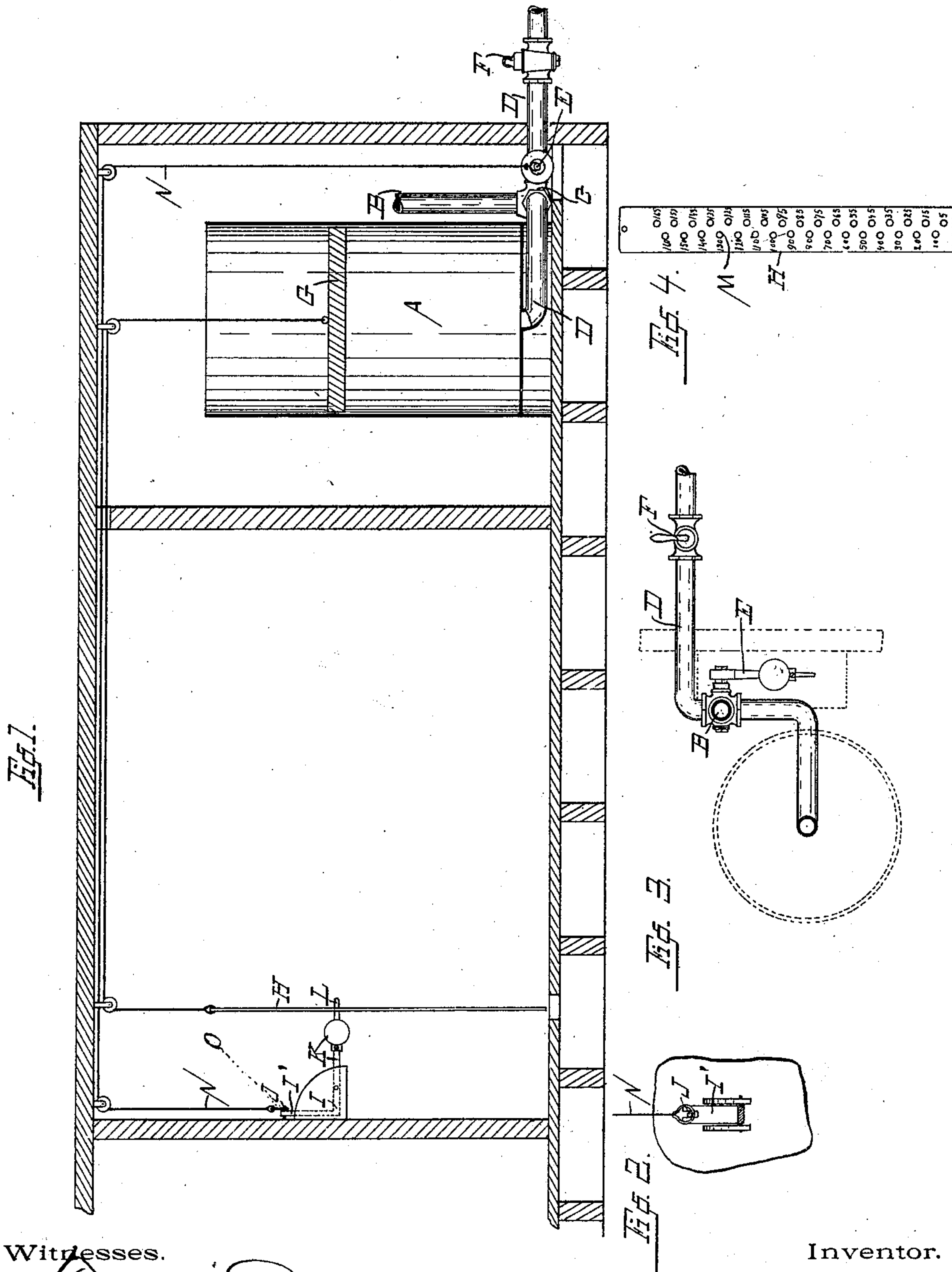
No. 615,712.

Patented Dec. 13, 1898.

C. E. JENKS.
MEASURING APPARATUS FOR CREAMERIES.

(Application filed Aug. 19, 1897.)

(No Model.)



Witnesses.

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UNITED STATES PATENT OFFICE.

CLINTON E. JENKS, OF LAKE MILLS, WISCONSIN, ASSIGNOR OF ONE-HALF
TO EDWARD D. HUGHSON, OF SAME PLACE.

MEASURING APPARATUS FOR CREAMERIES.

SPECIFICATION forming part of Letters Patent No. 615,712, dated December 13, 1898.

Application filed August 19, 1897. Serial No. 648,786. (No model.)

To all whom it may concern:

Be it known that I, CLINTON E. JENKS, a citizen of the United States, residing at Lake Mills, in the county of Jefferson and State of Wisconsin, have invented new and useful Improvements in Measuring Apparatus for Creameries, of which the following is a specification.

My invention relates to improvements in measuring apparatus for creameries.

The object of my invention is to provide means whereby the operator on receiving the fresh milk can adjust a gage to automatically measure the amount of skim-milk to which the patron is entitled and permit such patron to withdraw the same.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a sectional elevation of a portion of a creamery, showing my invention as it is applied thereto. Fig. 2 is a front view of the trip mechanism drawn on line $x x$ of Fig. 1. Fig. 3 is a detail top view of the outlet and inlet pipes of the measuring-tank, together with the valves. Fig. 4 is a side elevation of the gage-bar for regulating the position of the tank-float and setting the trip mechanism.

Like parts are identified by the same reference-letters throughout the several views.

A tank A is adapted to receive the milk from a main vat or storage-tank (not shown in the drawings) through a pipe B, three-way valve C, and pipe D, the latter serving also as an outlet-pipe. The valve C is normally held in a position to permit the discharge of the liquid from the tank A by means of a weighted lever E, and the discharge-pipe D is also provided with a self-closing valve F, exterior to the creamery building, which is preferably a spring-actuated valve and which retains the liquid in the tank until drawn off by the patron, who opens valve F for that purpose.

Within the tank A, I have provided a float G, which is connected by a cord or wire to a perforated gage-bar H, located in that portion of the creamery which is occupied by the operator. In this portion of the building I have provided a float-actuated trip, consisting in an elbow-lever I, supported from the

wall or any other convenient point, with a vertical arm I', bifurcated and adapted to straddle a pin J, which projects from the support, and a projecting horizontal arm provided with a weight K and pointed end L, the latter being adapted to engage in the perforations or holes M in the gage-bar. The perforations M being arranged at regular intervals, it is obvious that they will indicate the height of the float in the tank when the bar is engaged by the lever-point L in any given perforation and that the number of gallons which the tank will contain beneath the float when the latter is at the various points of adjustment may also be ascertained and indicated on the gage-bar.

N is a cord or wire attached to the valve-lever E and extended into the operator's room, where it is provided with a hook or loop O, adapted to engage the pin J in front of the end I' of the lever I.

The operation of my device is as follows: Having ascertained the quantity of milk to which a given patron is entitled, the operator draws the gage-bar downwardly, thus raising the float to a point where it will be lifted by the incoming liquid when the desired quantity has been admitted to the tank. This point is indicated by the space-mark on the gage-bar opposite the hole in which the point L of the lever I is inserted. The loop O of the wire or cord N is then drawn down and engaged by the pin J in front of the end I' of the lever I, the effect of so drawing down the cord being to raise the valve-lever E and admit the liquid to the tank through the pipe D. When the tank has been filled to the level of the float, the latter raises and springs the trip mechanism by permitting the gage-bar and the weight K to move downwardly, drawing the bifurcated arm J' forwardly, which releases the loop O from the pin J and permits the weighted lever E to drop, thus closing the inlet-port and opening the outlet. The milk can then be drawn off by the patron by opening the valve F.

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

1. The combination of a tank, valved inlet

and outlet pipe connections therefor, a float located in the tank, a trip, connections between the float and trip whereby each supports the other, and the float may be held at
5 any desired point in the tank, and valve-controlling connections adapted to be actuated by the trip when the float is raised by the liquid.

2. The combination of a tank, inlet and outlet pipe connections therefor, one or more valves for said pipes, a float located in the tank, a trip-lever, adjustable connections between the float and trip-lever, whereby each supports the other, and the float may be set
10 at any desired point in the tank, and valve-controlling connections adapted to be actuated by the trip-lever, when the float is raised by the liquid.

3. The combination of a tank, inlet and outlet pipe connections therefor, valve mechanism adapted to automatically close the inlet and open the outlet, a trip, adjustable connections between the float and trip, whereby each supports the other and whereby the float
20 may be held at any desired point in the tank, and connections for temporarily holding the valve mechanism in a reversed position, which said connections are arranged to be released by the trip, when the float is lifted by the
30 liquid.

4. The combination of a tank, inlet and outlet pipe connections therefor, valve mechanism adapted to automatically close the inlet and open the outlet, connections for reversing the position of the valve or valves, a pin for temporarily holding said connections with the valve mechanism in reversed position, an elbow trip-lever for releasing the valve-holding connections from said pin, and a weight
35 on the free arm of said lever adapted to automatically actuate the same, together with a float located in said tank, and a gage-bar connected therewith and adapted to engage the free end of the weighted trip-lever, the float
40 and weight being arranged to counterbalance each other, whereby as the former is lifted by the liquid in the tank, the latter is permitted to actuate the trip-lever, and release the valve-holding connections from said pin.

50 5. The combination of a tank, inlet and out-

let pipe connections therefor, valve mechanism adapted to automatically close the inlet and open the outlet, connections for reversing said valve mechanism and temporarily holding it in reversed position, together with
55 a float in the tank, a trip for releasing the valve-holding connections, adjustably connected with the float, whereby said float may be adjusted at any desired height in the tank, and actuated by said liquid to spring said
60 trip and release the valve-holding connections, and an independent valve located in the outlet-pipe.

6. The combination of a tank, inlet and outlet pipe connections therefor, valve mechanism arranged to automatically close the inlet, and open the outlet, connections for reversing the position of said mechanism, and temporarily holding it in a reversed position, together with a float located in said tank, a
70 gage-bar connected therewith and adapted to be adjusted to hold the float suspended at any desired height in the tank, and means for communicating the motion of the float when actuated by the liquid to release the valve-
75 holding connections.

7. The combination of a tank, inlet and outlet pipe connections therefor, valve mechanism adapted to automatically close the inlet and open the outlet, connections for reversing the position of the valve or valves, a pin for temporarily holding said connections with the valve mechanism in reversed position, an elbow trip-lever for releasing the valve-holding connections from said pin, and a weight
80 on the free arm of said lever adapted to automatically actuate the same, together with a float located in said tank, and means for connecting the float and trip-lever, the float and weight being arranged to counterbalance each
90 other, whereby as the former is lifted by the liquid in the tank, the latter is permitted to actuate the trip-lever, and release the valve-holding connections from said pin.

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

CLINTON E. JENKS.

Witnesses:

A. W. GREENWOOD,
J. T. GREENWOOD.