

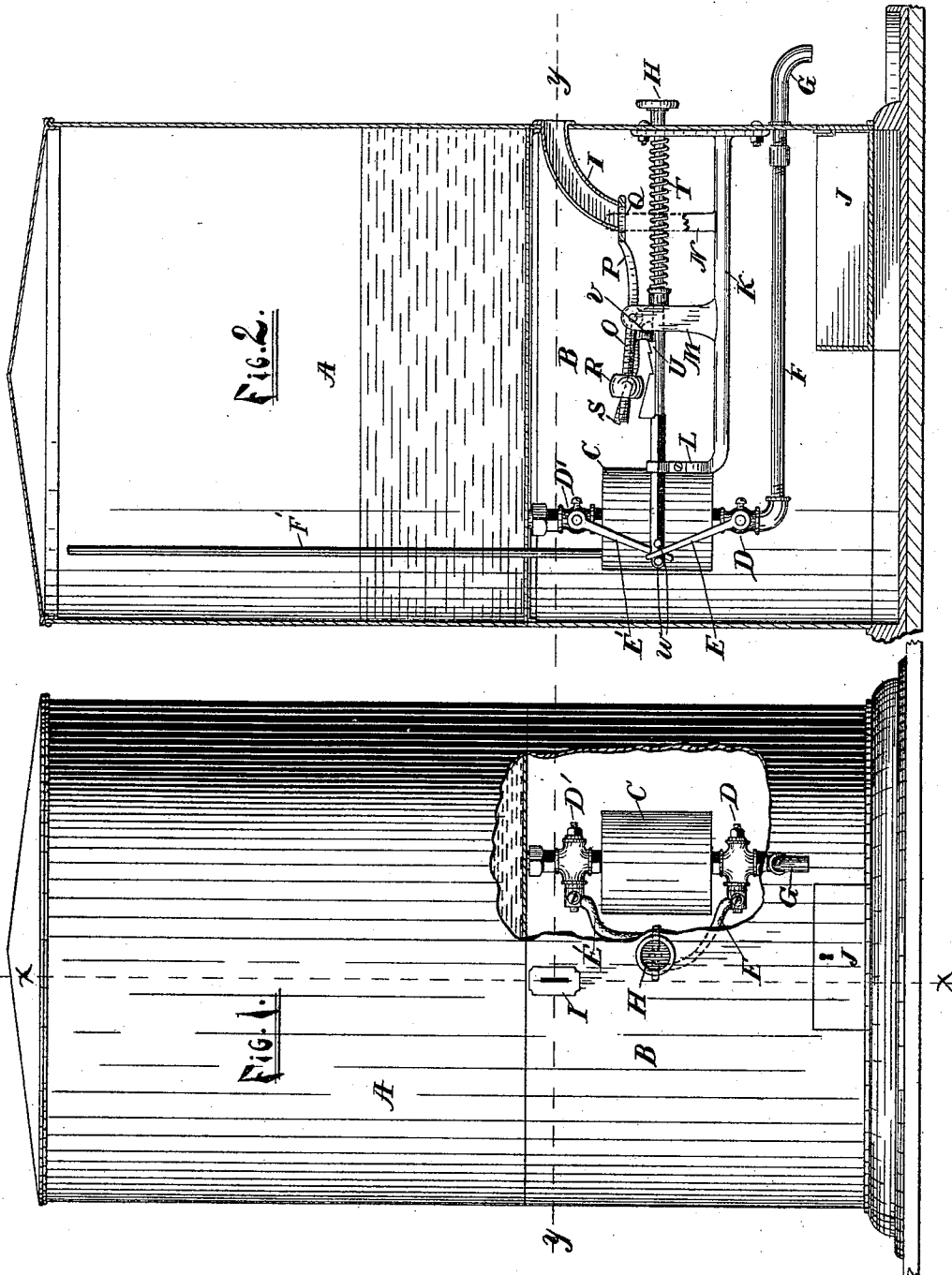
(No Model.)

2 Sheets—Sheet 1.

F. J. FAIRCHILD.
LIQUID VENDING APPARATUS.

No. 441,615.

Patented Nov. 25, 1890.



WITNESSES:

George W. Shook
Fred D. Yale

INVENTOR

Frank J. Fairchild
BY
Moulton & Rogers
ATTORNEYS

(No Model.)

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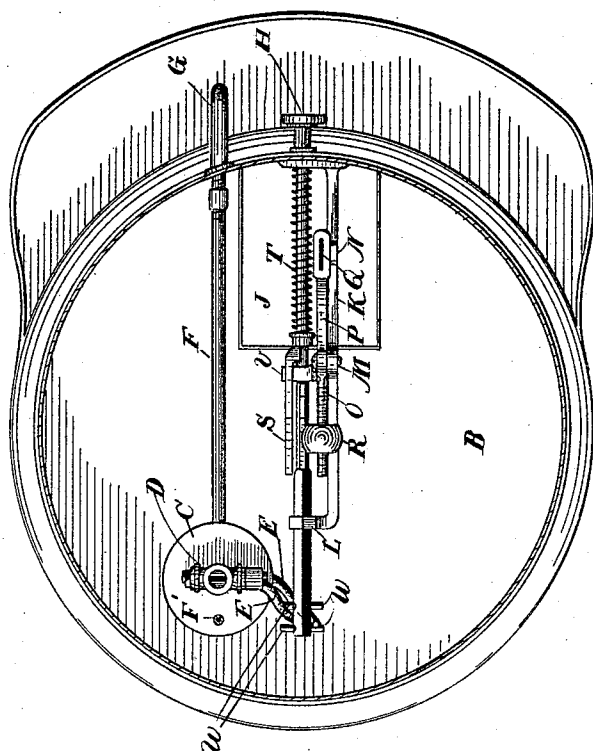


Fig. 3.

WITNESSES:

George W. Shook
Fred D. Gale

INVENTOR

Frank J. Fairchild

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Moulton Rogers
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UNITED STATES PATENT OFFICE.

FRANK J. FAIRCHILD, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO CHARLES E. WESTLAKE AND RANSOM H. STEVENS, BOTH OF SAME PLACE.

LIQUID-VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 441,615, dated November 25, 1890.

Application filed April 3, 1890. Serial No. 346,473. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. FAIRCHILD, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Vending Apparatus for Liquids; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to vending apparatus for liquids, and particularly to that class of such apparatus wherein a single measure only of the said liquid can be drawn from a tank by operating the mechanism by the introduction into the apparatus of a coin or other equivalent article; and said invention consists in the construction, combination, and arrangement of the various parts and details herein-after described, and more particularly pointed out in the subjoined claims, reference being had to the accompanying drawings, wherein—

Figure 1 is a front elevation of a device embodying my invention with part of the lower casing broken away to show the arrangement of some of the parts; Fig. 2, a vertical section of the same on the line $x x$ of Fig. 1; Fig. 3, a horizontal section on the line $y y$ of Fig. 1.

Like letters of reference indicate like parts throughout the drawings.

A represents an upper vessel for containing the liquid to be vended, which may be a separate tank from the lower casing B containing the vending mechanism, if desired. Within the lower casing B is suspended in any convenient manner a frame K, having upwardly-projecting arms or posts L M N. To the post M is pivoted the operating-lever having arms P and O, the arm P having a flattened end provided with an opening Q to let small coins through which are not of sufficient weight to operate the lever, and the arm O, provided with an adjustable weight R. The arm N acts merely as a guide or stop for the end of the lever to prevent its moving laterally. The end of the arm L is provided with an opening to accommodate the end of the pull-rod H, in

which opening said pull-rod moves horizontally, the opposite end passing outside the casing and being provided with a handle or knob, and is also provided with a retracting-spring T, and has a notched portion U, having notches which engage with a horizontally-projecting arm or pawl V on the operating-lever, which prevents the pull-rod from being moved horizontally outward. Secured on said pull-rod and moving with it is a top stop or guard S, over the pawl V, for limiting the upward movement of the weighted arm O. Secured to the end of said pull-rod are pins W, which engage the ends of levers E' E for operating the stop-cocks D' D, arranged above and beneath the measuring-vessel C, and which are so adjusted with relation to each other that when one is open the other is closed. The upper valve D' is normally open and communicates with interior of tank A, and when it is opened the liquid fills the measure, the air escaping through the vent-pipe. The lower valve D is normally closed and communicates with the discharge-pipe F, and when opened the liquid passes through pipe F and escapes through spout G, arranged outside of said casing.

The flattened end P of the operating-lever closes the bottom of the coin-chute I, which communicates with the outside of the casing, having a slot, as shown in Fig. 1, through which the coin is introduced. It is obvious that when a coin is so introduced into the mechanism and falls upon the end P of the operating-lever the opposite end O will rise, disengaging the pawl from notches U, and that then the pull-rod may be drawn outward, opening the lower valve and permitting the liquid in C to be drawn off. At the same time the coin will fall into the cash-box J. Upon releasing the pull-rod the retracting-spring T causes it to return to its former position, and the parts again readjust themselves to their normal positions.

What I claim to have invented, and desire to secure by Letters Patent, is—

1. In an apparatus of the class described, and in combination with the casing for containing the vending apparatus provided with

a coin-receiving slot I and the vessel A for containing the liquid to be vended arranged above said casing, the measuring-cup C, arranged underneath the vessel A, and provided
5 with outlet-pipe F, having discharge-spout G, extending outside of said casing, a valve D, communicating with said cup C, and valve D', communicating with said tank, a pull-rod H,
10 having a knob arranged outside said casing and provided with a retracting-spring, coin-operated mechanism engaging said pull-rod, and levers E and E', connecting said pull-rod with valves D D', respectively, arranged substantially as described, and for the purposes
15 set forth.

2. In combination with a measuring-vessel C, provided with valves D' D, having levers E' E, arranged as described, a pull-rod H, having a notched portion U, a pivoted lever
20 having an arm or pawl V, a weight R, and a flattened portion P for receiving the coin, ar-

ranged substantially as described, and for the purpose set forth.

3. In vending mechanism for liquids, and in combination with a tank for containing the
25 liquid and a casing for containing the vending mechanism, a measuring-receptacle C, having valves D' D, provided with levers E' E, a pipe F and spout G, a pull-rod H, having
30 pins W for engaging said levers, notched portion U, a guard S and a retracting-spring T, a pivoted lever having a pawl or arm engaging said notches, and a flattened end P, and provided with a weight W, and a coin-chute
35 I, arranged substantially as described, and for the purposes set forth.

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

FRANK J. FAIRCHILD.

Witnesses:

DENNIS L. ROGERS,
LUTHER V. MOULTON.