(No Model.)

S. P. BUCK.

AUTOMATIC STOP MOLASSES GATE.

No. 458,313. Patented Aug. 25, 1891.

Fig. 1.

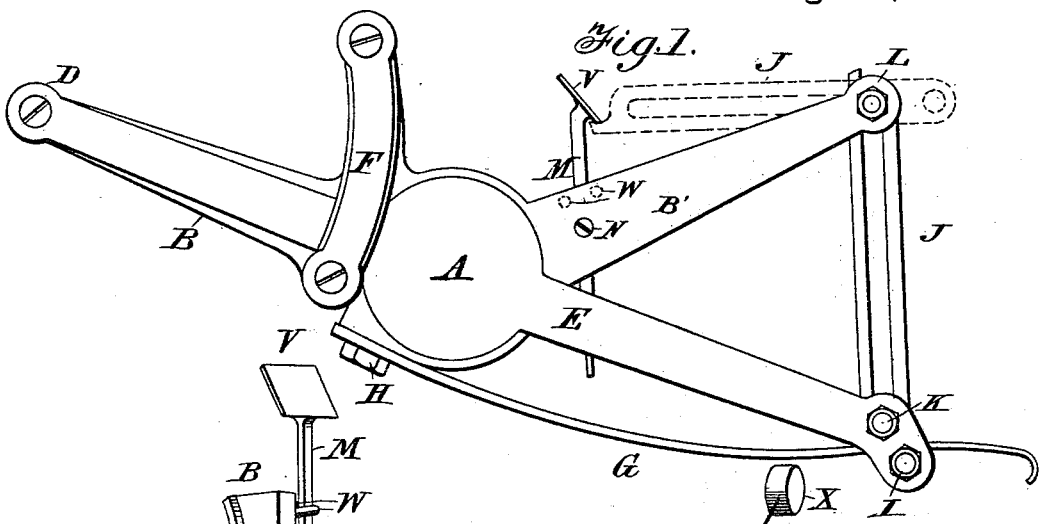


Fig. 3.

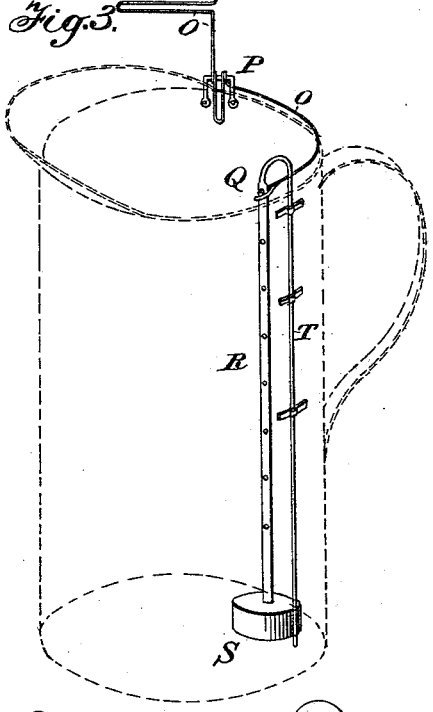


Fig. 4.

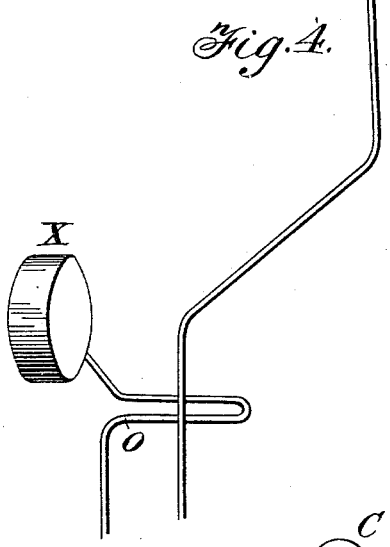
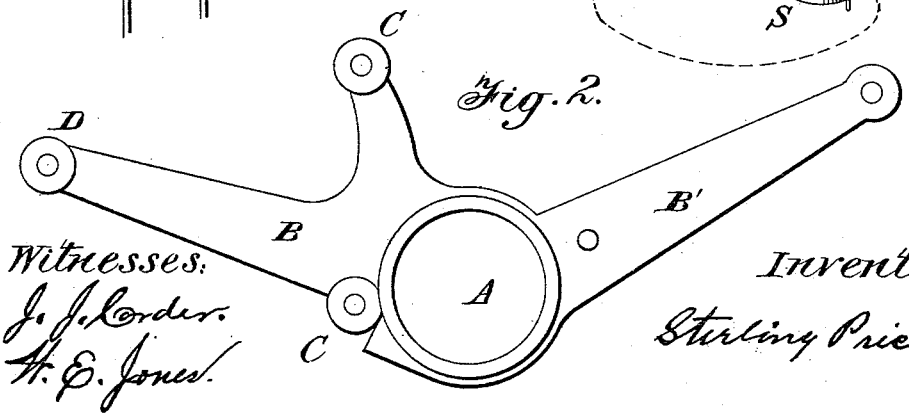


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

STERLING PRICE BUCK, OF FRONT ROYAL, VIRGINIA.

AUTOMATIC-STOP MOLASSES-GATE.

SPECIFICATION forming part of Letters Patent No. 458,313, dated August 25, 1891.

Application filed October 17, 1890. Serial No. 368,506. (No model.)

To all whom it may concern:

Be it known that I, STERLING PRICE BUCK, a citizen of the United States, residing at Front Royal, in the county of Warren and State of Virginia, have invented a new and useful Molasses-Gage, of which the following is a specification.

My invention relates to a molasses-gage by which molasses may be drawn from a barrel into a vessel made for the purpose; and the objects of my improvements are, first, to obtain any quantity of molasses desired, and, second, to afford facilities for automatically stopping the flow as soon as the desired quantity has been obtained. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front view of that part of the machine through which the molasses flows; Fig. 2, a front view of the frame-work cast in one piece. Fig. 3 is an outline of the vessel with its attachments; and Fig. 4 a section of Figs. 1 and 2 properly connected.

Similar letters refer to similar parts throughout the several views.

In Fig. 2, A is the end of the hollow trunk through which the molasses flows; B B′, the arms. C C and D are projections, each of which contains a screw-hole. The gate E is hinged to the elevation D at the end of the arm B, and is held against the end of the trunk A by the guard F.

G is a spring, which is screwed to the trunk at H and extends over the bolt I.

J is a lever, in which is a slot nearly its entire length. The bolt K passes through a hole in the end of the lever J, while the bolt L passes through the slot.

M is a trigger hinged to the arm B′ at N, and, as shown in Fig. 4, extends downward and is brought into contact with the lever O, which is hinged to the measure at P, and is extended thence along the rim of the vessel to Q, where it terminates with a short right-angular turn, which forms a pivot that passes through one of the holes in the rod R, thus connecting with the rod R, at the lower end of which is a buoy S. The guide T is fastened to the rod R at Q and passes through the wire loops on the outside of vessel to guide the buoy S upward. The rod is provided with eight holes, equal distances apart, by which to gage the quantity of molasses, as hereinafter shown.

The trigger M is provided with an inclined plane V, which acts in conjunction with the lever J, as hereinafter shown. The arm B′ is provided with two pins at W, one on each side of the trigger M, to keep said trigger within limits.

X is a weight, which shall be sufficiently heavy to almost balance the buoy, and requiring less pressure to throw the gate. The vessel shall be made of tin, with a capacity of five quarts, but with a measurement not exceeding one gallon. The fifth quart is for the ample working of the buoy.

By the following the precise workings may be more clearly understood. Suppose I wish to obtain one-half gallon of molasses. I first adjust the fourth hole in the rod R to the pivot on O at Q by passing the said pivot through said hole, thus raising the buoy so high in the vessel that no less than one-half gallon will raise said buoy, (see Fig. 3;) second, place the vessel under the trunk A, Fig. 1, in such a way that the molasses will not fall on the buoy; third, raise the gate E till the lever J, coming in contact with V, as previously referred to, will force its way into a notch under said V and by its leverage hold the gate E up, V acting as power, L the fulcrum, E the weight; fourth, adjust O by slightly moving the measure to the trigger M, as in Fig. 4, when the proper quantity has been obtained, the buoyant force of the molasses acting on the buoy S, by which motion is given to the rod R, thence to O, thence to M, thence to V, freeing the lever J, which in turn frees the gate E, stopping the flow immediately.

I am aware that prior to my invention molasses-gages have been made for the purpose of drawing molasses from a barrel into a measure made for the purpose and with trunk-gates, guard, and measure somewhat resembling mine. I therefore do not claim such a combination broadly; but

What I do claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a molasses-gage, of a hollow trunk A, having arms B B′, to one of which is hinged the gate E, and the other

to communicate with a slot in the lever J, which in turn communicates with the gate E and with the trigger M, for the purpose specified, all substantially as shown.

2. In a molasses-gage, the combination of a tin measure containing a buoy S, secured to the lower end of the rod R, which has holes for the adjustment of said rod R to the fastening at Q for the correct measurement of the molasses, substantially as shown.

3. The combination of the trigger M, acting in conjunction with the lever J of the faucet at one end and with the lever O of the measure at the other, all substantially as set forth.

STERLING PRICE BUCK.

Witnesses:
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