W. S. LYNN.

Measuring and Registering Tap for Barrels.

No. 218,292. Patented Aug. 5, 1879.

FIG. 2.

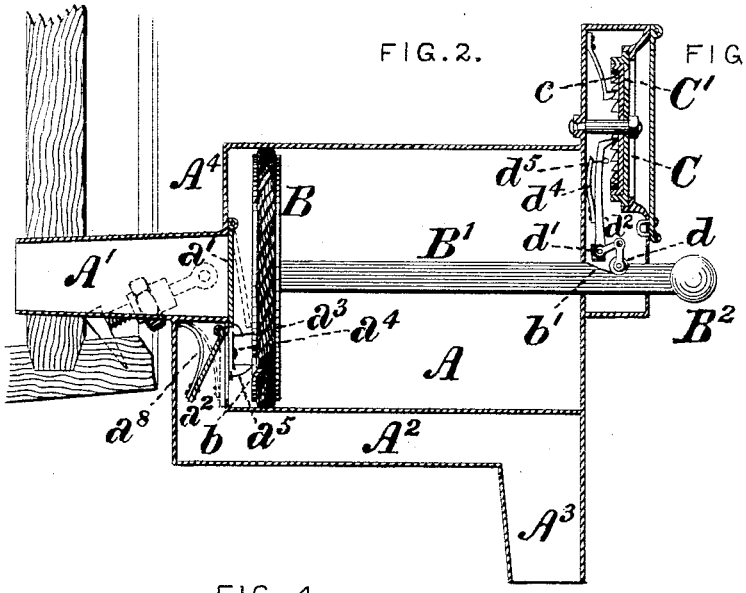


FIG. 3.

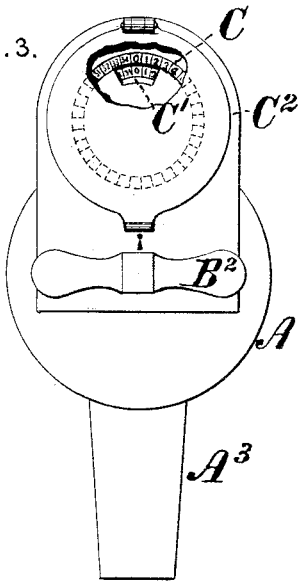


FIG. 4.

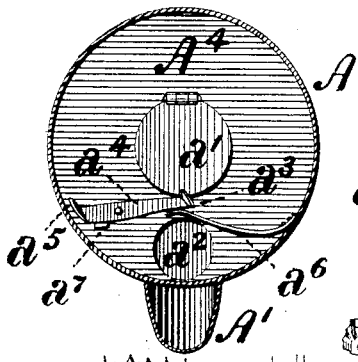


FIG. 6.

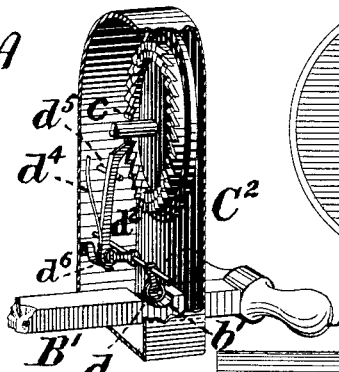


FIG. 5.

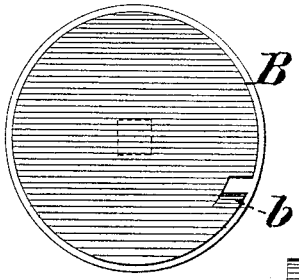
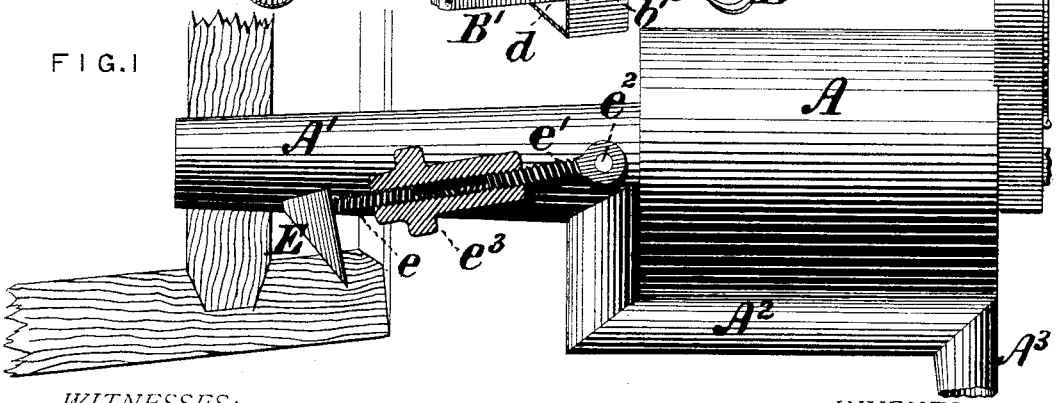


FIG. 1.



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UNITED STATES PATENT OFFICE.

WILLIAM S. LYNN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO MICHAEL C. HIRSCH, OF SAME PLACE.

IMPROVEMENT IN MEASURING AND REGISTERING TAPS FOR BARRELS.

Specification forming part of Letters Patent No. **218,292**, dated August 5, 1879; application filed March 19, 1879.

To all whom it may concern:

Be it known that I, WILLIAM S. LYNN, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Measuring and Registering Taps for Barrels, &c., of which the following is a specification.

The object of my invention is to provide an apparatus for drawing off a regulated portion of the contents of a cask, barrel, or other liquid-receptacle at any desired intervals, and for recording and indicating the number of drafts or separate portions taken therefrom, the apparatus being specially designed for the purpose of preventing peculations on the part of bar-keepers and other persons dispensing beer and similar liquors by the glass.

To these ends my improvements consist in the combination of a barrel or cylinder having a capacity equal to that of the measure or portion required for each glass, supply and discharge valves opening into and out of said barrel, a piston and rod working in said barrel, a device for alternately releasing and locking the supply-valve once at each draft by the movement of the piston, and a register connected with the piston and serving to record the double stroke thereof required for each draft.

My improvements further consist in an improved clamp for connecting the apparatus to the cask or barrel, all as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a side view, in elevation, of a measuring and registering tap embodying my improvements; Fig. 2, a longitudinal central section of the same; Fig. 3, a front view, in elevation, of the same; Fig. 4, a transverse section of the barrel and discharge-pipe; Fig. 5, a view, in elevation, of the piston from the rear; and Fig. 6, a view in perspective, showing the register and its connection with the piston-rod.

To carry out my invention I provide a cylindrical barrel, A, the internal capacity of which is equal to the quantity of liquor required to be taken from the cask or other receptacle at each draft plus the cubical contents of the piston B. The piston B, which is properly packed, so as to make a tight joint with the barrel A, is secured upon a rod, B^1, having a handle, B^2, by which it is operated upon its outer end. A supply-tube, A^1, is formed upon or secured to the inner head of the barrel A, and a discharge-tube, A^2, terminating in a nozzle, A^3, is attached to its lower side.

A supply-valve, a^1, is hinged to the inner head, A^4, of the barrel A, covering the mouth of the supply-tube A^1, and is kept closed against the pressure of the liquid within the cask by a curved spur or projection, a^3, on one end of a double-armed lever, a^4, pivoted to the head A^4 below the supply-valve, the spur a^3 being maintained in position against the valve by a spring, a^6, and stop a^7 on the head A^4.

A spur, a^5, curved in reverse direction to that of the spur a^3, is formed upon the opposite end of the lever a^4, and a corresponding curved cam or incline, b, is formed upon the adjacent side of the piston B, opposite thereto, the position of which incline relatively to the spur a^5 is maintained by using a square piston-rod, or by any other means which will prevent the rotation of the piston within the barrel A.

The effect of this construction and relation of the parts described is, that when the piston B is forced inward to the extremity of its traverse, the pressure of the incline b upon the spur a^5 forces that end of the lever a^4 upward and releases the supply-valve from its contact with the spur a^3. Upon the outward stroke of the piston the pressure of the liquid in the cask and the suction induced by the movement of the piston fill the barrel A with liquid, and the liquid is expelled at the inward stroke through the discharge-valve a^2, which is held in position by a spring, a^8, at its rear, into the discharge-tube A^2, and out of the nozzle A^3. Upon the commencement of the inward stroke of the piston, the applied pressure closes the supply-valve a^1, which rides over the curved surface of the spur a^3, and upon passing said spur the spring a^6 forces that end of the lever a^4 upward and locks the supply-valve until released for the next draft.

For the purpose of recording the number of drafts taken from the cask, I attach to the

front of the barrel A a register substantially similar to that described and shown in Letters Patent of the United States No. 200,552, for improvements in bottle-registers, granted and issued to me under date of February 19, 1878. The register consists of a locked case, C^2, containing two registering-dials, C C^1, each of which has a ratchet-wheel, *c*, secured upon it, one of the ratchet-wheels having one tooth more than the other.

A notch or recess, *b'*, is formed in the piston-rod B^1, within which rests a friction-roller, *d*, upon the lower arm of a bell-crank lever, d^1, pivoted to the register-case C^2.

A pawl-lever, d^2, having a pawl on its upper end, is pivoted to the upper arm of the lever d^1, and upon the movement of the roller *d* in the notch *b'* in the direction of the supply-valve, which movement takes place at the instant that the incline on the piston commences to release said valve for the purpose of making a draft of liquid from the cask, the pawl end of the lever d^2 moves the ratchet-wheels *c* forward one tooth, and registers one draft upon the dial. The pawl-lever is pressed up to the ratchet-wheels by a spring, d^4, and is prevented from moving at each elevation of the roller *d* from the notch *b'* for a greater distance than will suffice to advance the ratchet-wheels one tooth by a stop-pin, d^5, secured to the register-case. A spring, d^6, bearing against the lower end of the pawl-lever d^2, maintains the roller *d* in contact with the piston-rod B^1.

Figs. 1 and 2 show a device for attaching and securing the apparatus to a cask, consisting of a wedge-shaped claw, E, having a screw, *e*, projecting from one of its sides near its broad end, and which is driven into the stave of the cask adjacent to the opening in the head into which the supply-tube A^1 is inserted. A screw, e^1, the thread of which leads in contrary direction to that of the screw *e*, is hung upon a pin, e^2, on the side of the tube A^2, and the screws are connected by a coupling-nut, e^3, by the rotations of which nut the tap may be drawn up to and held firmly in connection with the claw E on the stave, with its supply-tube in the bung-hole or opening in the head of the cask. If preferred, a similar arrangement may be added on the opposite side of the supply-tube.

In the operation of my improvements it will be seen that it is impossible to draw more than one known measure of liquid at each double stroke of the piston, and impossible to draw either the same or a less quantity without at the same time effecting a registration thereof.

I am aware that the application of a registering device to a tap or faucet for recording the quantity of liquid passed through the same has been heretofore known, and do not therefore, broadly, claim such construction.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of a cylinder or barrel provided with supply and discharge tubes and valves, a piston and rod working in said barrel, a pivoted locking-lever and spring for holding the supply-valve closed, and a releasing cam or incline on the piston for opening said valve, substantially as set forth.

2. The combination of the notched or recessed piston-rod, the bell-crank lever carrying a roller fitting into the notch in the piston-rod, the pawl-lever pivoted to said bell-crank lever, and the registering-dials and ratchet-wheels, substantially as and for the purpose set forth.

3. The combination, with a measuring and registering tap, as described, of a clamping device consisting of a wedge-shaped claw engaging the stave of the cask, and connected with the tap by right-and-left screws and a double-threaded coupling-nut, as and for the purpose set forth.

WM. S. LYNN.

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