(No Model.) 3 Sheets—Sheet 1.

W. M. FOWLER.

APPARATUS FOR DISPENSING DRINKS.

No. 457,489. Patented Aug. 11, 1891.

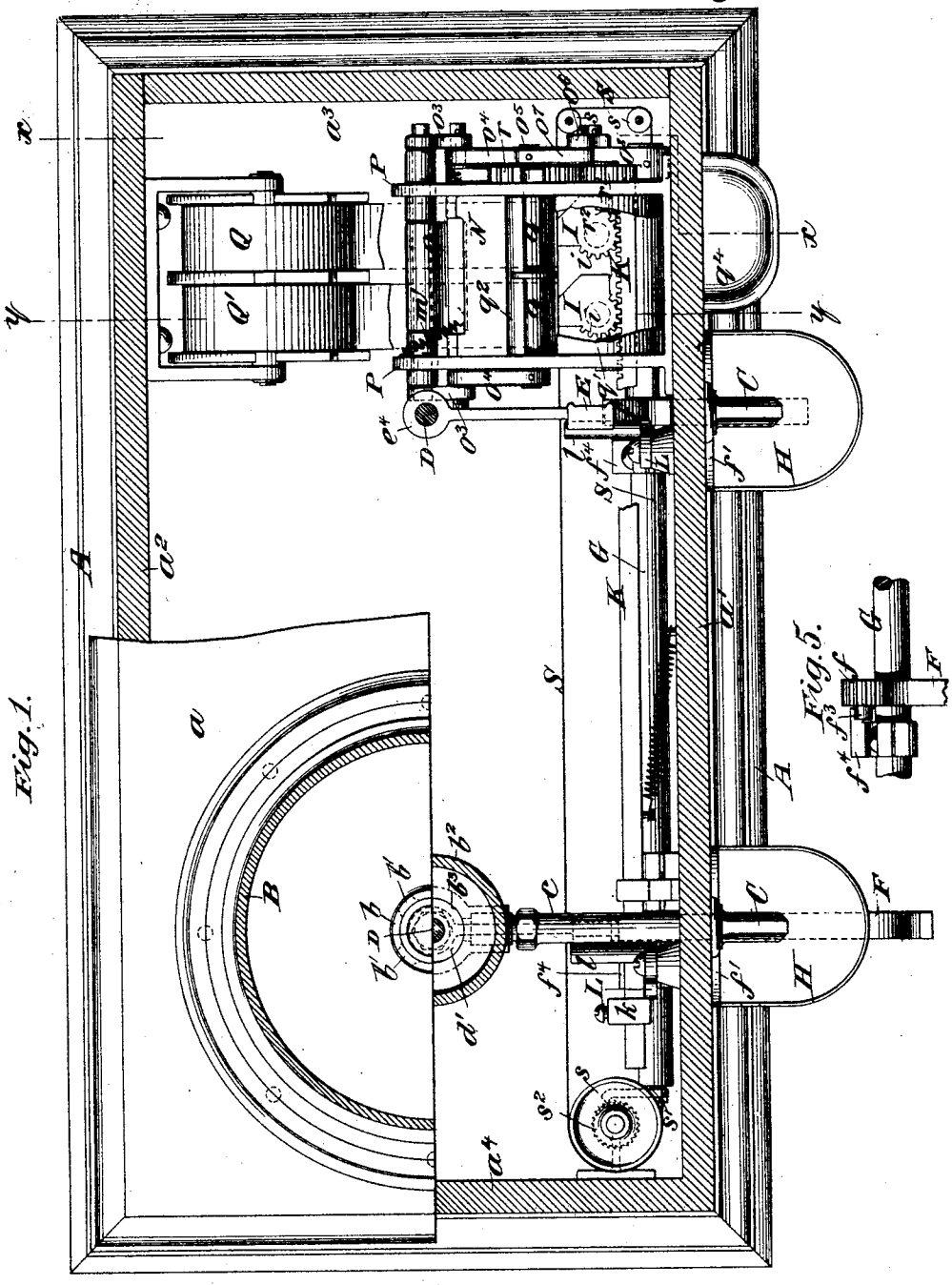


Fig. 1.

Fig. 5.

Witnesses:-
D. H. Haywood
L. N. Lagendre

Inventor:-
William M Fowler
by attorneys
Brown & Seward

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W. M. FOWLER.

APPARATUS FOR DISPENSING DRINKS

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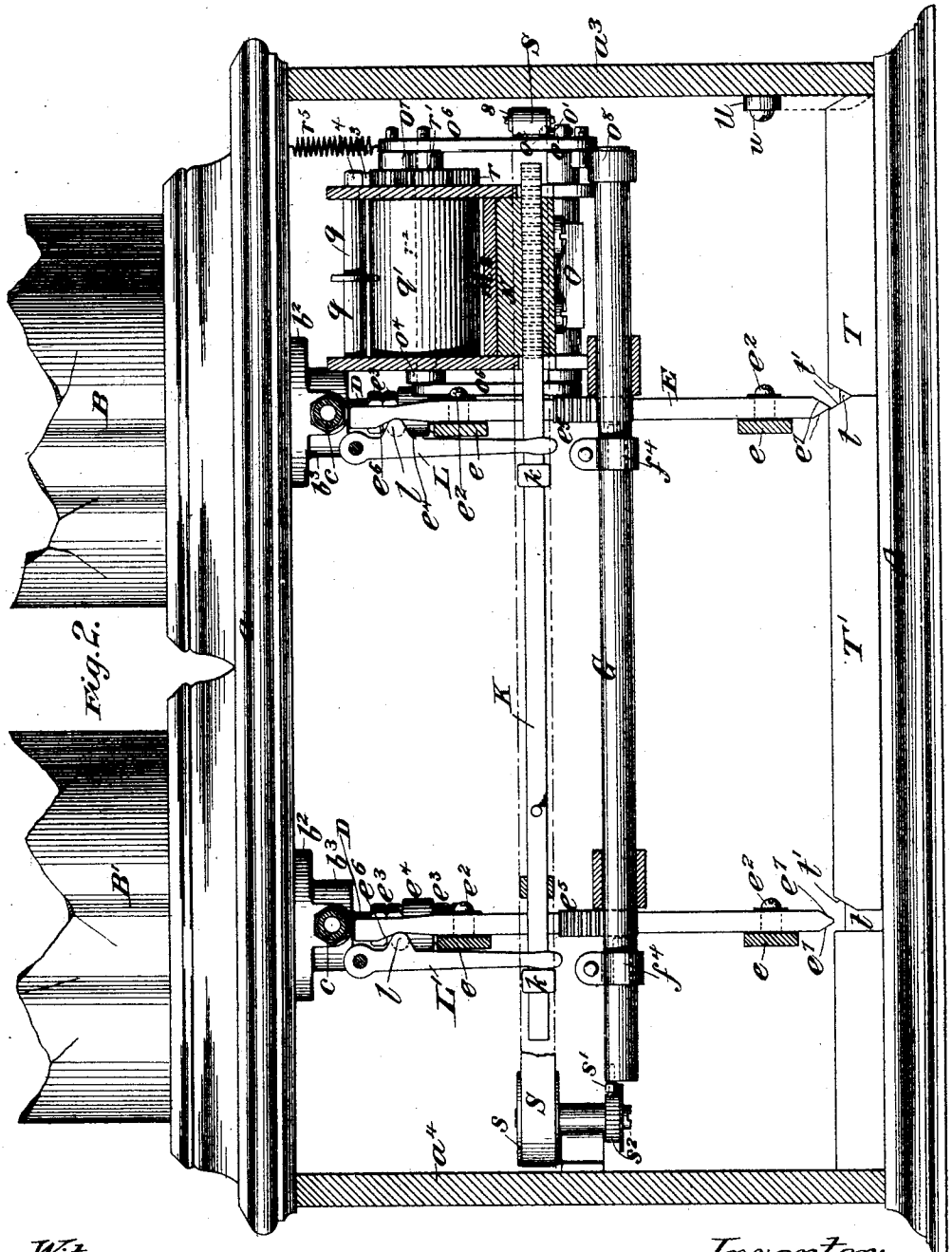


Fig. 2.

Witnesses:-
D. H. Hayward
L. N. Legendre

Inventor:-
William M. Fowler
by attorneys
Brown & Seward

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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W. M. FOWLER.

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Fig. 4.

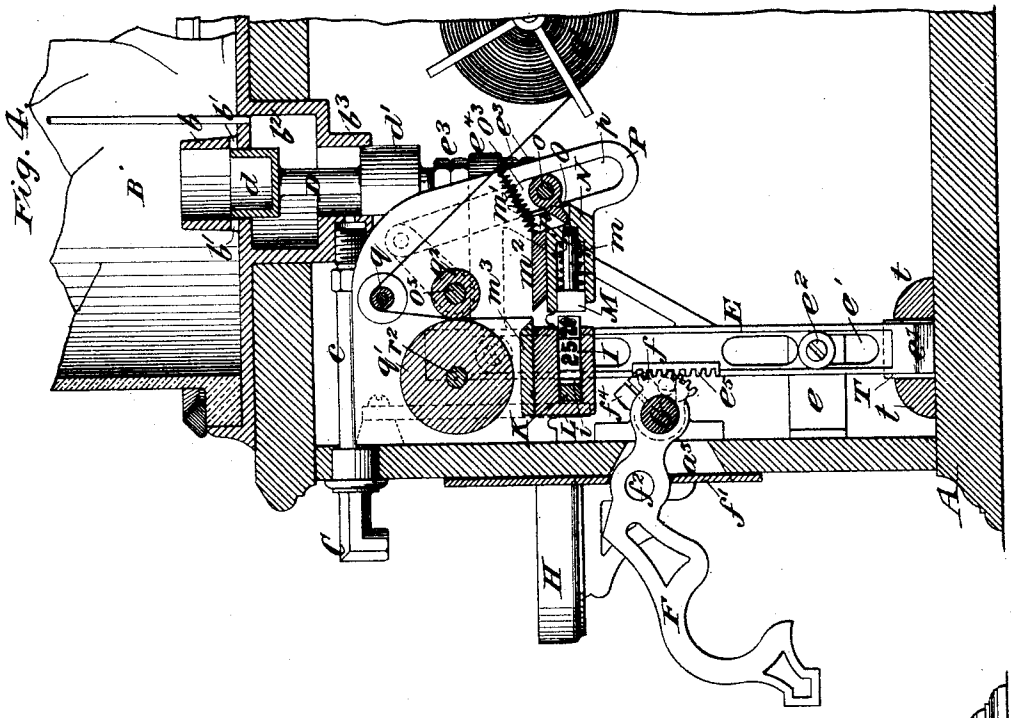
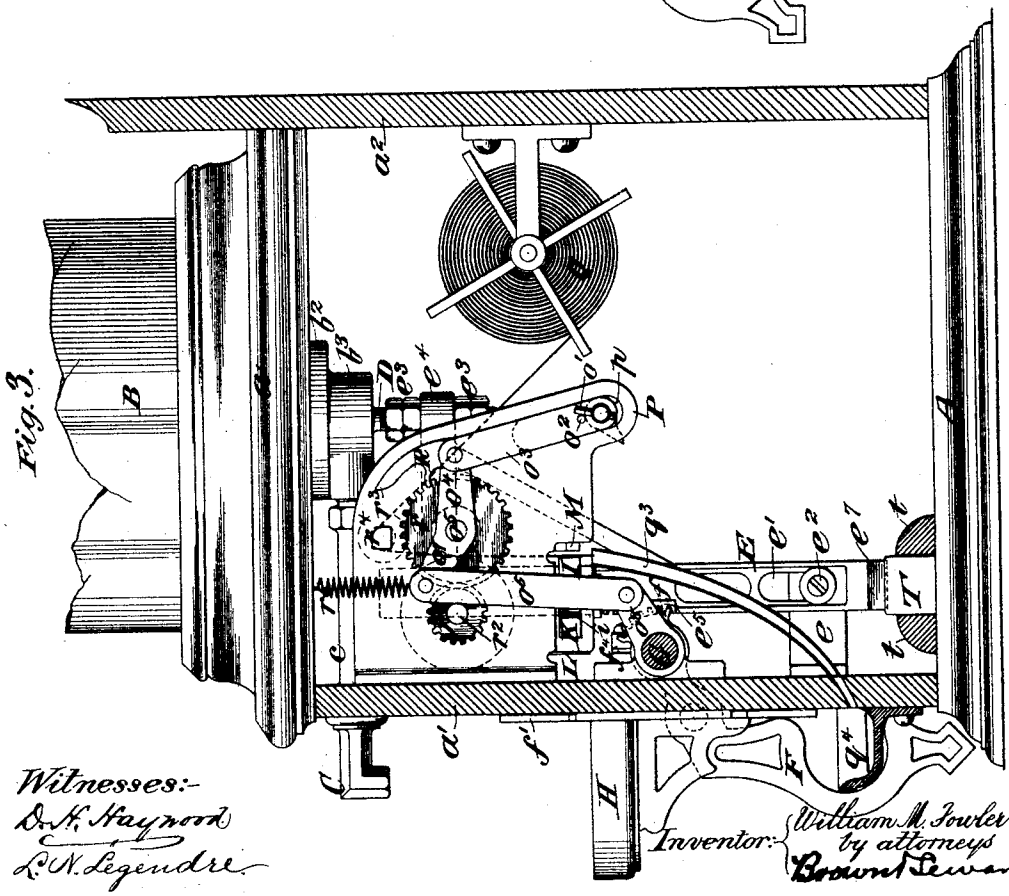


Fig. 3.



Witnesses:-
D. H. Haywood
L. N. Legendre

Inventor: William M. Fowler
by attorneys
Brown & Seward

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM M. FOWLER, OF MILFORD, CONNECTICUT.

APPARATUS FOR DISPENSING DRINKS.

SPECIFICATION forming part of Letters Patent No. 457,489, dated August 11, 1891.

Application filed December 13, 1890. Serial No. 374,599. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. FOWLER, of Milford, in the county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Apparatus for Dispensing Drinks, of which the following is a specification.

My invention relates to an improvement in apparatus for dispensing drinks, in which provision is made for drawing from each of a series of reservoirs by independent operating devices and at the same time utilizing a recording device common to the several delivering devices and adapted to record different prices for the different reservoirs from which the supply is drawn.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a top plan view, the greater portion of the top of the casing and the reservoirs thereon being removed to more clearly show the operating mechanism within. Fig. 2 represents the apparatus in front elevation, the front of the casing and the operating-levers being removed. Fig. 3 is a transverse section through line $x\ x$ of Fig. 1. Fig. 4 is a transverse vertical section through line $y\ y$ of Fig. 1, and Fig. 5 is a view in detail showing the connection of the operating-lever with the shaft for operating the recording mechanism.

I have shown this apparatus in the present instance in connection with two reservoirs only; but it is to be understood that the number of reservoirs might be increased within reasonable limits by repeating the delivering mechanism represented at the left-hand portion of Figs. 1 and 2 for each additional reservoir.

In describing this apparatus I shall find it convenient to refer, first, to the mechanism by which a predetermined quantity of liquid may be drawn from any one of the reservoirs at pleasure and delivered outside of the casing; secondly, to the recording mechanism by which a double record is made of the price of the drink and varying in accordance with the particular reservoir from which it may have been drawn, and, thirdly, the locking mechanism, by means of which the simultaneous operation of two of the delivering devices is prevented, and by which the entire number of delivering devices may be simultaneously locked against operation.

A represents the bottom, a the top, a' the front, a^2 the back, and a^3 a^4 the ends, of a suitable casing adapted to inclose the dispensing and recording mechanisms. For convenience in gaining access to the interior one of the ends, in the present instance a^3, may be arranged to open and may be kept locked by any well-known or suitable locking mechanism.

Along the top a there are located a series of reservoirs B B′, &c., the bottoms of which are provided with upwardly-extending tubular projections b within the reservoirs. The tubular projections b are provided at their bases with ports b', extending through their walls. An opening is formed through the bottom of the reservoir corresponding with the opening within the tubular projection b, and a rim b^2, depending from the bottom of the reservoir, surrounds said opening, and is provided with a contracted neck b^3, the interior of which communicates with a spout C in the exterior of the casing through a discharge pipe or conduit c. The opening in the neck-piece b^3 is in alignment with the opening through the bottom of the reservoir and the opening within the tubular projection b, and the opening and closing of the ports b' and the discharge-conduit are effected by the following means:

A vertically-movable rod D is provided at its upper end with a piston-like enlargement d, adapted to fit with an easy sliding movement within the interior of the tubular projection b. The said rod is also provided with a piston-like enlargement d', adapted to fit with an easy sliding movement within the contracted neck b^3. The location of the piston-like enlargements d and d' upon the rod D is such that when the rod is elevated sufficiently to bring the lower portion of the part d above the ports b', and thereby open communication between the reservoir and the space within the rim b^2 below it, the part d' will be elevated sufficiently to close communication between said space and the discharge-conduit c, and when the part d' is depressed,

as shown in Fig. 4, so as to open communication between the space inclosed by the rim b^2 and the discharge-conduit, the part d' will be in position to form a closure between the ports b' and said space. From this it follows that when the rod D is in elevated adjustment the space inclosed by the rim b^2 will fill with the liquid from the reservoir, and the subsequent depression of the rod will cut off the supply from the reservoir and will allow the liquid which had accumulated in said space to fall out through the discharge-conduit c and spout C. It will further be observed that because of the extended exterior surface of the part d the supply will be cut off as soon as the rod D begins its downward movement, and that the space occupied by said part d within the liquid space surrounded by the rim b^2 will be compensated for by the space made in the contracted neck b^3 by the depression of the part d' until said part reaches a point below the discharge-conduit c, when the liquid will be allowed to discharge freely.

The movement of the rod B, with the parts thereto attached, is effected by means of a vertically-sliding frame E, conveniently secured in sliding adjustment to one or more brackets e, fixed to the casing. In the present instance I have shown the frame E as provided with an elongated slot e', through which a stud-screw e^2 extends into the bracket e. The frame E is connected with the rod D in such a manner that the rod D may be adjusted to open and close the ports at the proper time, and this adjustment is conveniently accomplished by means of jam-nuts e^3 upon the threaded end of the rod D upon opposite sides of the arm e^4 of the frame, through which the threaded end of the rod D extends.

Upon the edge of the sliding frame E there is located a rack e^5, with which a toothed sector f on the end of an operating-lever F engages. The operating-lever F is loosely mounted upon a rock-shaft G, which extends horizontally within the casing and forms a common support for the several operating-levers, one for each reservoir. The operating-lever F extends through an opening a^5 in the casing within convenient reach of the operator. As the said lever is arranged to swing a short distance within the opening a^5, and the said opening is consequently made somewhat longer than the width of the lever, I have provided a guard f', adapted to slide up and down, together with the lever and form a closure for said opening a^5. In the present instance I have shown the rest H for the glass or other receptacle as fixed to the guard f' and have pivoted the guard f' to the lever, as shown at f^2, so that when the lever F is elevated to draw the drink the rest H will be elevated toward the spout C.

The operation of the delivering mechanism is, in short, as follows: The lever F being depressed, as shown in Fig. 3, and the rod D being thereby elevated, opening communication between the reservoir and the space inclosed by the rim b^2, which space is in effect the measure which determines the amount of liquid to be dispensed at one time, the operator pulls upwardly on the lever F, thereby, through the toothed sector f and rack e^5, depressing the sliding frame E, and with it the rod D and parts fixed thereto, cutting off communication between the reservoir and the measuring-space and opening communication between such measuring-space and the discharge-conduit and allowing the liquid previously contained in said space to flow out through the conduit c and the spout C.

The record is made as follows: A pair of type-carrying wheels or sectors—in the present instance quadrants I—are supported in rocking adjustment within the casing and carry upon their faces as many different groups of type as there are different reservoirs or different-priced drinks to be dispensed. In the present instance I have shown the quadrants as each provided with three different sets of type, denoting three different prices. The said type-carrying wheels or sectors have fixed to rotate therewith toothed wheels or sectors i, and in engagement with said toothed wheels or sectors is a rack-bar K, which has an endwise sliding movement under the impulse of swinging arms L L', &c., the free ends of which are adapted to abut against adjustable collars or other suitable abutments k, fixed on the rack-bar K. The arms L L' are swung by the engagement of cams e^6 on the vertically-sliding frames E, with projections l l', &c., on the arms L L', &c. Directly opposite the type on the faces of the type wheels or sectors I there are located a pair of printing-plungers M, secured upon yielding seats m within sliding blocks N, and held normally away from the type by means of a spring m'. There is also fixed to said sliding block one blade m^2 of a shears, the corresponding blade m^3 being fixed to the casing or to a suitable support projecting therefrom. A dog O is pivoted upon a shaft o, and is prevented from rotating in one direction thereon by a pin or shoulder o' in engagement with a stop o^2, as shown in Fig. 3, but is allowed to rock in the opposite direction thereon. The shaft o has a reciprocating movement in elongated slots p in the arms P of a supporting-frame, and said shaft is controlled by means of a pair of links o^3, loosely connected at one end with the shaft and at their opposite ends with the arms o^4 of a lever pivoted upon a shaft o^5, and operated by a link or connecting-rod o^6, connected at the one end with the arm o^7 of the lever and at the opposite end with a crank o^8, fixed on the rock-shaft G. The shaft G is rocked by the lifting of the handle of the operating-lever F, because of the engagement of a pin or shoulder f^3 on its end with a stop f^4, fixed on the shaft G. (See Fig. 5.) The position of the dog O is such that when the shaft o is elevated the free end of the dog