

(No Model.)

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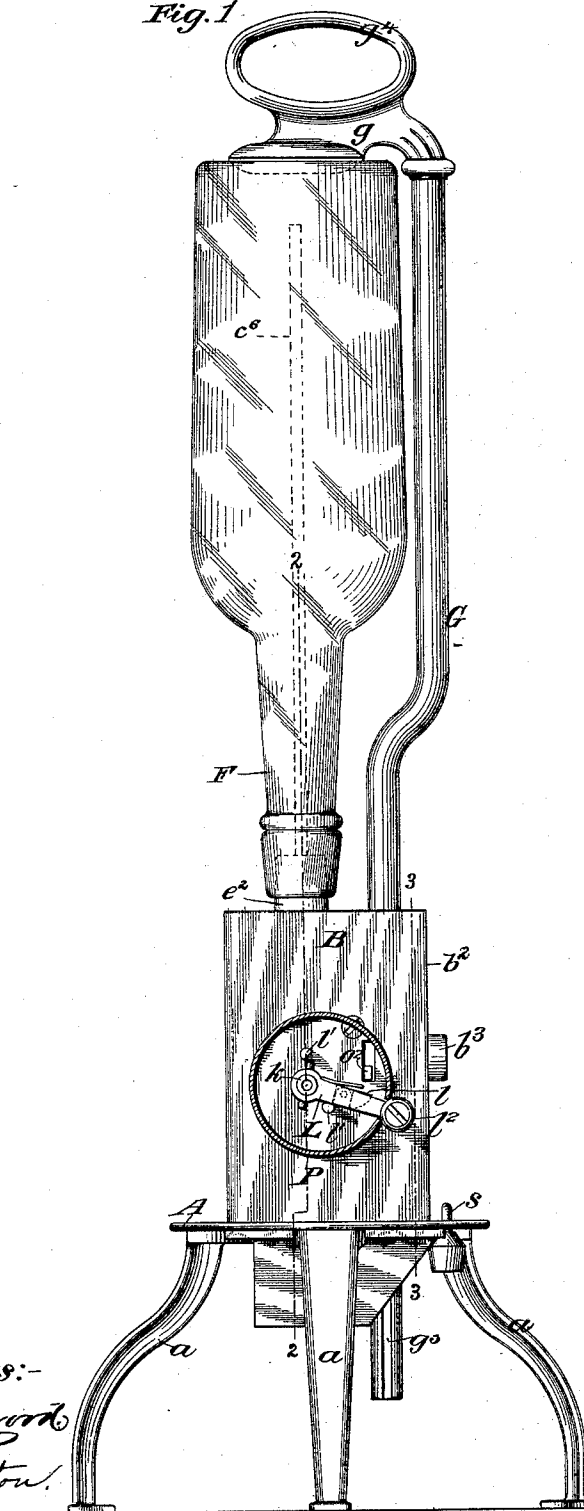
W. M. FOWLER.

RECORDING APPARATUS FOR DISPENSING DRINKS.

No. 463,304.

Patented Nov. 17, 1891.

Fig. 1



Witnesses:-

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A. B. Rembleton

Inventor:-

William M. Fowler

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(No Model.)

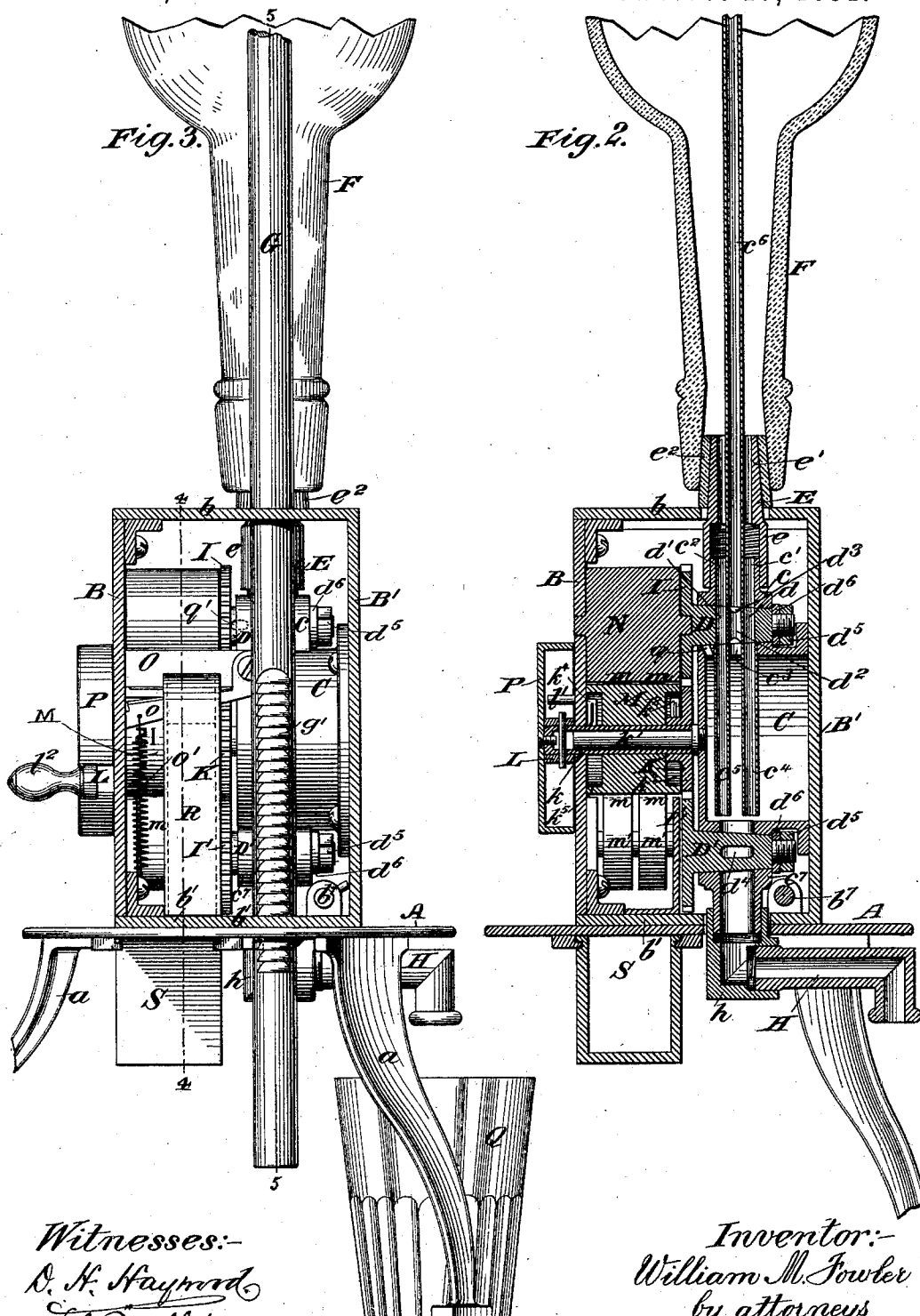
3 Sheets—Sheet 2.

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Witnesses:-
D. H. Hayward
L. E. Pemberton

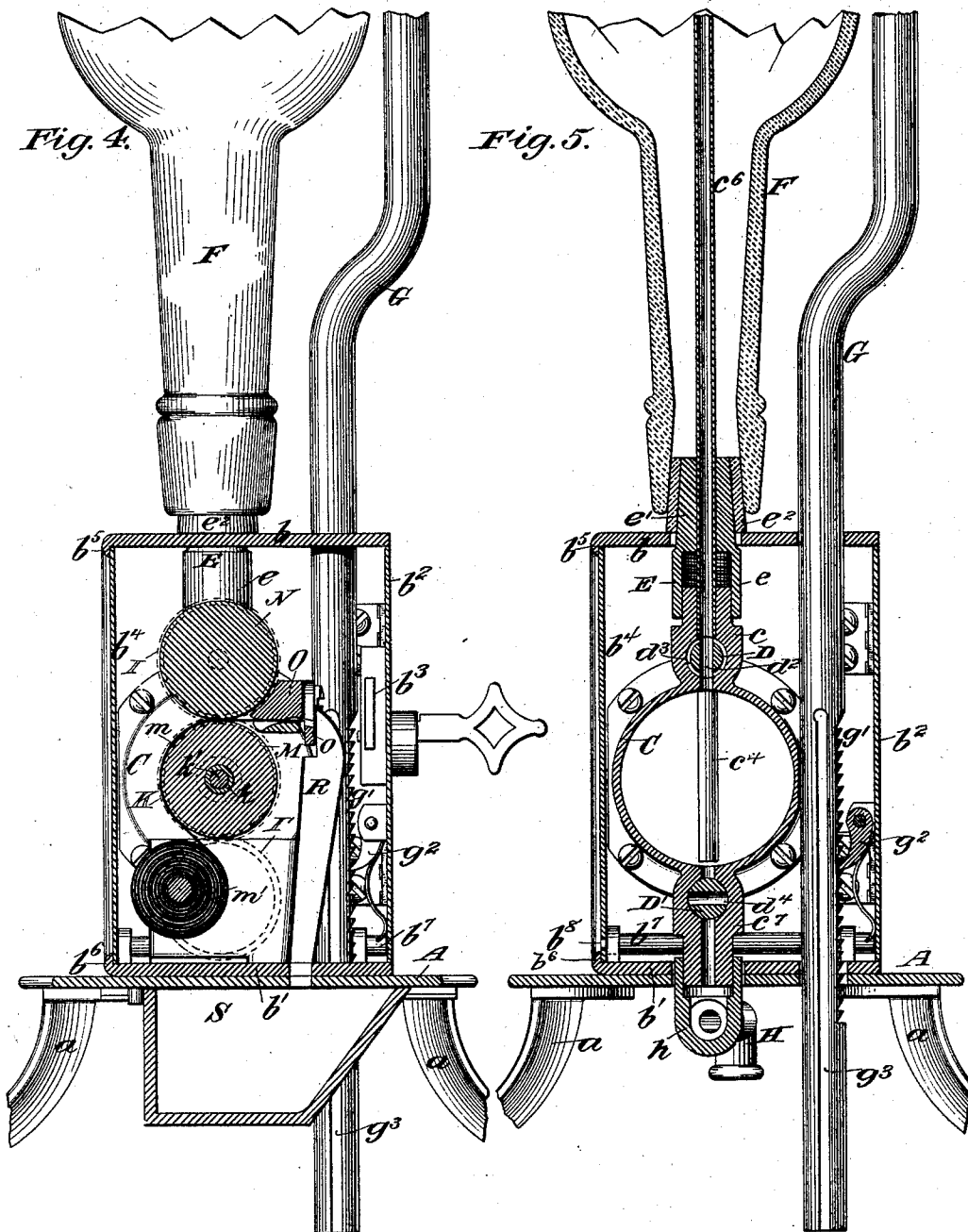
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UNITED STATES PATENT OFFICE.

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RECORDING APPARATUS FOR DISPENSING DRINKS.

SPECIFICATION forming part of Letters Patent No. 463,304, dated November 17, 1891.

Application filed December 29, 1890. Serial No. 376,093. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. FOWLER, of Milford, in the county of New Haven and 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, and more particularly to an apparatus of this character which may be readily transported from place to place and which is adapted to receive as its supply-reservoir any one of the bottles of ordinary size and shape, such as are commonly employed in storing beverages.

The object is to provide means for securing the supply-reservoir in position to have its contents dispensed in predetermined quantities and a double record thereof made, while at the same time the dispensing and recording mechanism remains guarded against tampering therewith and the supply-reservoir itself locked in position.

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

Figure 1 represents the apparatus in side elevation with parts assembled as in use, the box in which the operating-lever swings being represented in section to show the lever and certain parts operated thereby. Fig. 2 is a vertical section taken through line 2 2 of Fig. 1. Fig. 3 is a vertical section taken through line 3 3 of Fig. 1. Fig. 4 is a vertical section taken through line 4 4 of Fig. 3. Fig. 5 is a vertical section taken through line 5 5 of Fig. 3.

A represents a base which is conveniently supported upon legs *a*. Upon the base *A* there is secured a casing conveniently of oblong rectangular form, as herein shown, the sides *B B'*, the top *b*, and the bottom *b'* of which are fixed, while the front *b²* is hinged at one edge in any well-known or approved manner to the side, so as to admit of its being swung open, and is provided with a lock *b³* for locking it in closed adjustment to prevent access to the interior of the casing except by the person holding the key. The rear *b⁴* is arranged to slide laterally out of its position to gain access to the mechanism within the casing at the rear.

Bearings for the top and bottom of the rear sliding portion *b⁴* of the casing are conveniently formed by lips *b⁵* and *b⁶*, formed along the edges of the top and bottom of the casing, and the said sliding portion is locked against displacement by means of a sliding bolt *b⁷*, which extends from front to rear across the interior of the casing near its bottom, its reduced end *b⁸* entering a socket formed for the purpose in the sliding part *b⁴*. The bolt *b⁷* extends flush with the interior face of the door *b²* when the latter is in closed adjustment, so that it is impossible to draw the bolt and slide the rear part *b⁴* of the casing unless the door shall have been first unlocked and swung open. By this means the openings to both front and rear are made to depend upon the holding of the key to the lock *b³*.

The measuring-receptacle *C*, which determines the amount of the liquid which shall be dispensed at one time, is fixed to the side of the casing, and is here shown as of cylindrical form. Upon its upper side it is provided with a neck or boss *c*, longitudinally through which is formed a series of openings *c'*, *c²*, and *c³*, and transversely through which across the paths of the said openings there is formed an opening for the reception of a rotary valve *D*. The valve *D* is provided with a series of openings *d*, *d'*, and *d²*, corresponding, respectively, to the openings *c'*, *c²*, and *c³* in the neck or boss *c*, which when turned to register with the openings in the neck or boss form continuous openings from the upper end of the boss or neck through to the interior of the measuring-receptacle *C*, but which when the valve is turned to the right or left cut off communication with the interior of the measuring-receptacle through the perforations *c'* and *c²*. The said valve *D* is, however, provided with an annular groove *d³*, located in the plane of the perforation *d²* therethrough, by which communication is at all times established with the interior of the receptacle *C* through the perforation *c³*.

From the lower ends of the perforations *c'* and *c²* tubes *c⁴* and *c⁵* depend within the receptacle *C* to a point near the bottom of said receptacle, and a tube *c⁶* projects upwardly from the top of the neck or boss *c*, forming a continuation of the perforation *c³* in said boss or neck to a point above that at which the

surface of the liquid in the supply-reservoir is intended to stand. A tubular connection E is provided at its lower end with an internally-threaded socket *e*, intended to screw
 5 over the upper portion of the boss or neck *c*, while the upper end of said tubular connection E projects upwardly through an opening in the top of the casing and forms, as shown at *e'*, a seat for the reception of the nozzle of
 10 a bottle F. The upwardly-projected portion *e'* of the connecting-tube E is surrounded by suitable elastic packing *e²* to form a liquid-tight joint between the said tube and the bottle. When the bottle is placed with its
 15 nozzle over the projecting end of the connecting-tube, the small tube *c⁶* is intended to extend, as indicated in dotted lines in Fig. 1, nearly to the inner surface of the bottom of the bottle.

20 The bottle is locked in its inverted position upon the connecting-tube by means of a vertically-adjustable rod G, provided at its upper end with an overhanging arm *g*, adapted to seat within the depression in the bottom
 25 of the bottle, as shown in Fig. 1. The lower portion of the rod G extends downwardly through the casing and is provided along its front side within the casing with a series of ratchet-teeth *g'*, with which a spring-actuated
 30 dog *g²*, pivotally secured to the inner face of the door *b²*, engages, and while permitting the free depression of the rod G locks it against upward movement, save only when the door
 35 *b²* is swung open. The rod G is conveniently provided with a groove *g³* along its side, in which a feather in the bottom of the casing is arranged to slide to hold the rod in the proper
 40 relation with respect to the locking-pawl, and it is also conveniently provided with a handle *g⁴* for convenience in adjusting it.

A tubular neck or boss *c⁷* projects from the bottom of the receptacle C and connects through the base A and the bottom of the casing with a discharge-spout H. In the present instance I have shown an L-coupling *h*,
 45 which may be first screwed onto the projecting end of the boss or neck *c⁷*, and the spout H may then be screwed into the other branch of the coupling.

50 Transversely through the boss or neck *c⁷* a valve D' extends, the same being provided with an opening *d⁴* therethrough, which, when the valve is turned to bring the opening to register with the interior of the tubular boss
 55 *c⁷*, forms a free discharge from the bottom of the receptacle through the discharge-spout, but when the valve is turned to the right or left forms a cut-off, closing the said discharge.

The valves D and D' are held in their seats
 60 by nuts *d⁵*, screwed onto their projecting ends, as shown, and bearing against suitable washers *d⁶*, interposed between the nuts and the sides of the necks *c* and *c⁷*. On their opposite ends the said valves *d* and *d'* are provided with gear-wheels I and I', either formed
 65 integral with the valves or fixed thereto. An intermediate gear-wheel K is fixed to a rock-

ing sleeve or hollow shaft *k*, mounted upon a stud *k'*, fixed to and projecting outwardly from the end of the receptacle C. The position of the gear-wheel K is such as to inter-
 70 mesh with the wheels I and I' on the valves D and D', so that when the gear-wheel K is rotated the said valves will be simultaneously rocked in their seats to open one and close
 75 the other. The sleeve *k* projects outwardly through the side of the casing and has fixed to its outer end an operating-lever L.

Loosely mounted upon the sleeve *k* is a type-carrying roller M, (see Figs. 2, 3, and 4,) over which two strips *m* of material to be
 80 printed lead, side by side, from a supply-roll *m'*, suitably mounted in the lower portion of the casing. There are two series of type around the periphery of the type-roller M,
 85 corresponding to the two strips of material to be printed, and the type are located at such a distance apart that each stroke of the operating-lever L will move the type-wheel M
 90 sufficiently to bring the next succeeding type into position to impress the paper by the pressure of the roller N. The roller N is journaled at one end as a matter of convenience and for compactness in the end of the
 95 valve D and at its opposite end in the side of the casing. The type-carrying roller M is caused to advance during one stroke of the lever (in the present instance the forward or
 100 downward stroke) by means of a spring-actuated pawl *k²*, carried by the hub of the spur-wheel K and adapted to engage an internal series of ratchet-teeth *k³* in the end of the
 105 roller. (See Fig. 2.)

The roller M is prevented from moving in the opposite direction during the return
 110 stroke of the operating-lever by means of a spring-actuated stop-pawl *k⁴*, pivotally secured to the side of the casing and adapted to engage an internal series of ratchet-teeth *k⁵* in the opposite end of the roller M.

By the above construction and arrangement I am enabled to utilize the type-carrying roller in conjunction with the pressure-roller N for the purpose of feeding the strips forward as well as for impressing the number desired. As the impressed or printed strips of
 115 material are fed forward from the type-roller they are guided between the stationary and movable jaws O and *o* of a cutter. The movable jaw *o* of the cutter is held normally out
 120 of engagement with the stationary jaw by means of a spring *o'*, as clearly shown in Fig. 3, and is forced toward the stationary jaw O to sever the printed slips by the engagement
 125 therewith of the operating-lever L. To accomplish this, the free end of the jaw *o* projects through an elongated slot in the side of the casing, as shown at *o²*, Fig. 1, so that when
 130 the operating-lever L is swung on its return stroke a pawl *l*, carried by said lever, will engage the end *o²* and force the movable jaw toward the stationary jaw. When the lever swings in the opposite direction, the pawl *l*, being free to swing in one direction, will pass

the projecting end of the movable jaw without impeding the movement of the lever. The lever L is limited in its stroke in each direction by means of suitable stops l' , projecting from the side of the casing, and the entire lever, with the exception of its operating-handle l^2 , is normally concealed within a cap-piece P, fixed to the end of the rocking sleeve k , so as to rock with the sleeve and lever.

The operation is as follows: The bottle or other suitable reservoir from which the liquid is to be dispensed is seated mouth downward upon the projecting end of the tube E and is locked in place by the bar G and the pawl g^2 engaged therewith. The series of ratchet-teeth on the bar G with which the pawl g^2 engages is intended to be sufficiently long to admit of any reasonable variation in the heights of the bottles employed as supply-reservoirs. If now the operating-lever L be given its forward or downward stroke, it will through the rocking sleeve or shaft k and gear-wheel K, rock the valves D and D' into position to open valve D, and hence communication between the supply-reservoir or bottle and the interior of the measuring-receptacle C, and close valve D', and hence communication between said receptacle and the discharge-spout. This will allow the measuring-receptacle C to fill with liquid from the supply-reservoir, the air within the receptacle C escaping up through the tube c^6 above the liquid in the supply-reservoir as fast as it is displaced by the entrance of the liquid into the receptacle C. This same stroke of the operating-lever L also rotates the type-carrying and feed rollers by the engagement of the pawl h^2 with the type-carrying roller and the pressure of the roller N upon the material being fed, and thereby feeds the printed strips of material through between the jaws of the cutter in position to be severed. The return stroke of the lever L simultaneously rocks both of the valves D and D', cutting off communication between the supply-reservoir and the interior of the receptacle C, and at the same time opening communication between said receptacle and the discharge-spout. The liquid within the receptacle C is now free to pass out through the discharge-spout H into a glass Q or other suitable receiving-vessel.

Air is supplied to the receptacle C while the liquid is being drawn therefrom through a port q , which is closed by the valve D when the latter is turned into position to open communication between the supply-reservoir and the receptacle C, but communicates with the outside air through a recess q' in the valve when the latter is turned into position to close communication between the supply-reservoir and the receptacle C. The tubes c^4 and c^5 depending within the receptacle C extend the column of liquid from within the supply-reservoir to such a distance below the top of the receptacle C that, should any considerable amount of liquid accumulate in the air-tube c^6 in filling the receptacle C it will be forced

out by the weight of the descending columns of liquid into the receptacle C when the valve D opens communication.

The return stroke of the operating-lever also operates the movable jaw of the cutter and severs the duplicate tickets from the strips. One of these tickets falls freely into the bottom of the inclosed casing, and access thereto can be obtained only by a person holding the key to a lock b^3 . The other of the duplicate tickets passes down a chute R, (see Figs. 3 and 4,) through openings in the bottom of the casing and in the base A, into a drawer or other suitable receptacle S.

It is intended that access to the receptacle S shall be had by some person—the bartender, for example—other than the person holding the key for gaining access to the interior of the casing, and that access to the receptacle S may be had by the key to a lock s . In the present instance the receptacle C is shown as a drawer which slides in suitable guides beneath the base A and is locked in position by the hasp of a padlock extended through a perforation or perforations in the base A in front of the drawer. By the above arrangement the apparatus may be set upon the table where one or more customers are seated and they may draw from it as often as they see fit. For every drink that has been dispensed there has been made a double record, one set of the tickets being retained within the casing and the other set within the drawer S. When settlement is required, the person in charge may open the drawer S, count the number of tickets, make out the bill, and lay the tickets aside. The drawer S being replaced, the apparatus may be set before another customer or set of customers, and so on throughout the day or until the liquid within the bottle has been wholly dispensed.

The proprietor or person appointed by him to replenish the supply reservoirs or bottles, upon opening the casing, will find there a complete record of the number of drinks dispensed from the emptied reservoir wholly independent of the several records which may have been removed from the drawer S.

What I claim as my invention is—

1. The combination, with a stationary measuring-receptacle, a supply-reservoir in communication therewith, and means for cutting off communication between the liquid-supply and the interior of the receptacle, of a recording mechanism under the control of the means for cutting off the said supply, substantially as set forth.

2. The combination, with the stationary measuring-receptacle and a connection for the attachment of a removable supply-reservoir thereto in communication with the interior of the measuring-receptacle under the force of gravity, of means for locking the removable supply-reservoir in position, means for regulating the flow of liquid from the supply-reservoir to the measuring-receptacle, and

means for regulating the discharge of the liquid from the measuring-receptacle, substantially as set forth.

3. The combination, with the seat or projection for the reception of the nozzle of the supply-reservoir, a measuring-receptacle, and a casing surrounding the measuring-receptacle, of a locking bar or rod adapted at its upper end to engage the bottom of the supply-reservoir and extending at its lower end within the casing, and a locking device in engagement with the bar within the casing to prevent its removal therefrom, substantially as set forth.

4. The combination, with a suitable casing, a measuring-receptacle fixed within the casing, and a connection extending from the receptacle through the casing and adapted to receive the mouth of a supply-reservoir, of a locking bar or rod provided at its upper end with an overhanging arm adapted to engage the bottom of a supply-reservoir and extended within the casing, the said bar being provided with a series of ratchet-teeth within the casing, a pawl adapted to engage said ratchet and prevent the movement of the bar or rod away from the position to hold the reservoir and at the same time permitting its free movement in the opposite direction, and means for swinging the pawl out of engagement with the bar or rod, substantially as set forth.

5. The combination, with a suitable casing provided with a door and means for locking the door closed, of a measuring-receptacle fixed within the casing and provided with a connection extending through the casing to receive the mouth of a supply-reservoir, a locking bar or rod adapted at its upper end to engage the bottom of the reservoir and provided at its lower end within the casing with a series of ratchet-teeth, and a pawl pivotally secured to the said door and adapted, when the door is closed, to engage the ratchet-teeth and lock the said bar against removal from the casing, substantially as set forth.

6. The combination, with the fixed portions of the casing, of a door at one side of the casing provided with a lock for securing it in closed adjustment, a sliding section of the casing located opposite the door, and a sliding bolt extending from the door across within the casing into engagement with the said sliding section, the arrangement of the bolt being such that when the door is locked the said bolt will be secured in engagement with the sliding section, substantially as set forth.

7. The combination, with a suitable casing and a measuring-receptacle fixed therein and provided with a connection at its upper portion extending through the casing into position to communicate with the supply-reservoir and with a connection at its lower portion extending through the casing to connect with a discharge-spout, of a pair of valves, one located in each of said connections, an operating-lever, a connection between the operating-lever and the two valves for simultaneously operating

ing them, and a recording mechanism under the control of the said lever to be operated simultaneously with the operating valves, substantially as set forth.

8. The combination, with the casing and the measuring-receptacle fixed therein and provided with suitable connections for receiving its supply from the supply-reservoir and for discharging its contents, of a pair of rotary valves, one adapted to control the admission of the liquid into the receptacle and the other to control the discharge of the liquid from the receptacle, operating-wheels fixed to the valves, and a rocking wheel in engagement with the two valve-operating wheels for simultaneously rotating them, substantially as set forth.

9. The combination, with the casing, a measuring-receptacle fixed therein, and its connections through the casing for establishing communication between it and the supply-reservoir and discharge-spout, of a pair of rotary valves, one for controlling the entrance of the liquid into the measuring-receptacle and the other for controlling the discharge of the liquid from the receptacle, gear-wheels on the valves, a gear-wheel in position to intermesh with the gear-wheels on the valves, and a lever for operating the said last-named gear-wheel, and thereby simultaneously operating the valves, substantially as set forth.

10. The combination, with the casing, the measuring-receptacle fixed therein, and its connections with the supply and discharge, of the valves for regulating the supply and discharge, an operating-lever, a rocking shaft to which the operating-lever is fixed, means for connecting the said rocking shaft with the valves for simultaneously operating them, a pair of feed-rollers, one carried by said rocking shaft and the other by a frictional contact therewith, one of said rollers being provided with series of type, and means for supplying the material to be printed between the two rollers, substantially as set forth.

11. The combination, with the dispensing mechanism, the operating-lever, and the rock-shaft for connecting the operating-lever with the dispensing mechanism, of a type-carrying roller loosely mounted upon said rock-shaft and provided with series of ratchet-teeth, pawls adapted to engage said ratchet-teeth, one of the pawls being carried by the rock-shaft and serving to advance the roller and the other being pivoted to the casing and serving as a stop, and means for supplying the material to be printed to the face of the type-roller, whereby the operating of the dispensing mechanism feeds and prints the strips, substantially as set forth.

12. The combination, with the dispensing mechanism and the rock-shaft and operating-lever for operating the said mechanism, of a type-carrying roller loosely mounted on said rock-shaft and provided with a series of ratchet-teeth, a pawl carried by said rock-shaft in position to engage the ratchet-teeth on the

roller to advance it, means for preventing the retrograde movement of the roller when the rock-shaft is rocked in the opposite direction, and means for presenting the material to be printed to the face of the type-roller, substantially as set forth.

13. The combination, with the dispensing mechanism and the means for operating it, of a double recording mechanism under the control of the means for operating the dispensing mechanism, a receptacle provided with a lock adapted to receive one of said records, and another receptacle provided with a lock adapted to receive the other of said records, substantially as set forth.

14. The combination, with the dispensing mechanism and the reciprocating operating-lever for controlling the said mechanism, of a recording mechanism under the control of said lever during its stroke in one direction and a cutter under the control of said operating-lever during its stroke in the opposite direction, substantially as set forth.

15. The combination, with the casing and the dispensing and recording mechanisms located therein, of the operating-lever located upon the outside of the casing and the cap inclosing the body of the operating-lever and secured to rock together with the lever, substantially as set forth.

16. The combination, with the measuring-receptacle, its supply-reservoir, and means for controlling the entrance of the liquid from the supply-reservoir to the receptacle and its discharge therefrom, of an air-tube extending from said receptacle into position at or above the surface of the liquid in the supply-reservoir and a liquid-conduit extending from the top of said receptacle downwardly therein and forming an extension of the communication between the interior of the reservoir and the receptacle, substantially as set forth.

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Witnesses:

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