

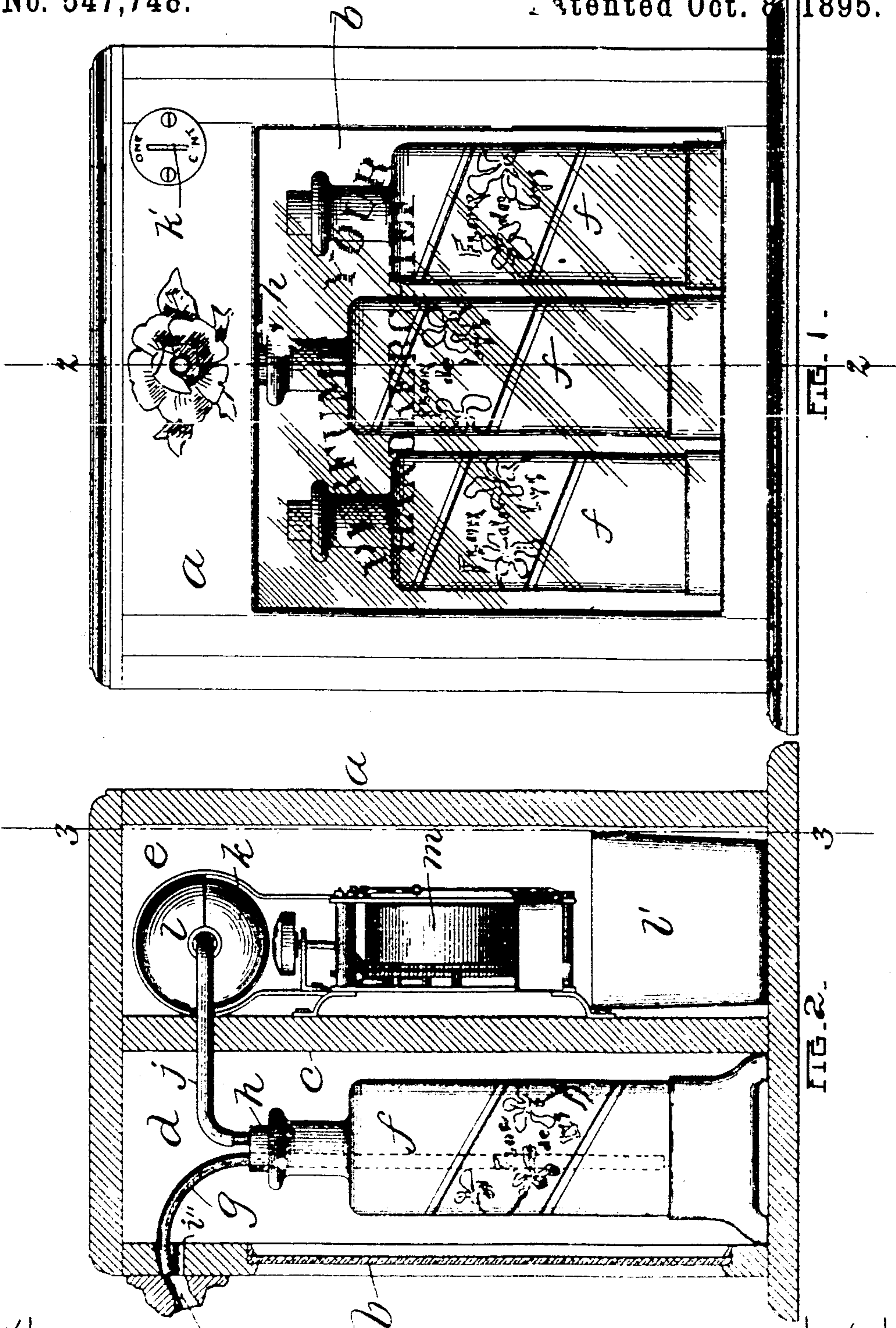
(No Model.)

2 Sheets—Sheet 1.

D. E. WHITTON.
COMBINED COIN OPERATED VENDING MACHINE AND GOODS
DISPLAYING DEVICE.

No. 547,748.

Patented Oct. 8, 1895.



Witnesses.

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C. H. Stetson

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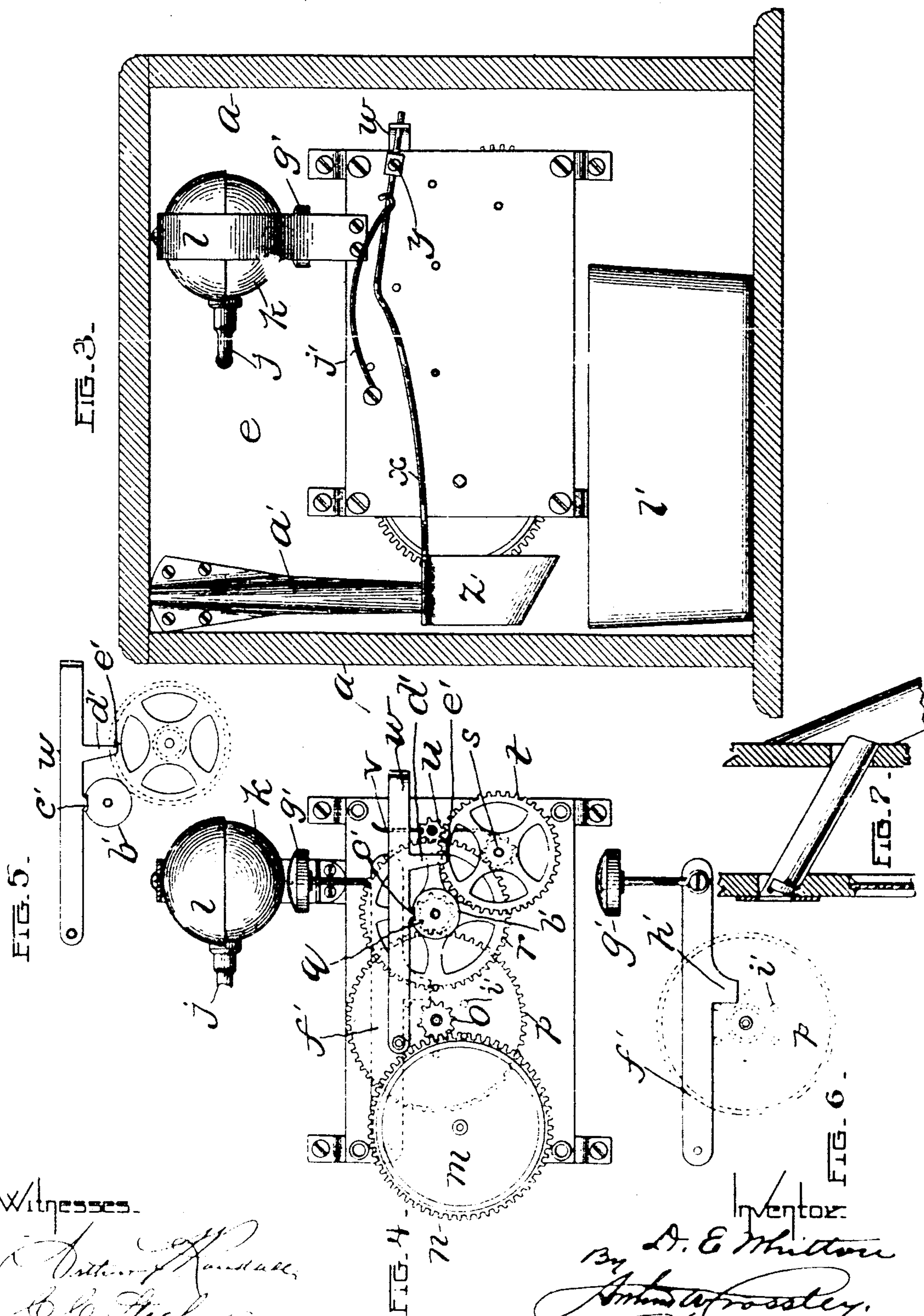
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UNITED STATES PATENT OFFICE.

DAVID E. WHITTON, OF SOMERVILLE, MASSACHUSETTS.

COMBINED COIN-OPERATED VENDING-MACHINE AND GOODS-DISPLAYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 547,748, dated October 8, 1895.

Application filed January 15, 1895. Serial No. 535,017. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. WHITTON, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in a Combined Coin-Operated Vending-Machine and Goods-Displaying Device, of which the following is a specification.

This invention has relation to coin-operated vending-machines generally, and particularly to such as are designed to be used for the sale of liquids—such as perfumery, &c.

It is the object of the invention to provide a device of the kind mentioned which shall be simple in construction and certain in operation and by which the liquid may be discharged directly from the glass bottle or tank in which it is contained, so that it may not be brought into contact with metal or other deleterious substance.

It is also the object of the invention to combine with a machine of the kind mentioned an exhibiting or advertising device, so that the substance being sold may be exhibited and advertised to the users of the machine and the public.

To these ends the invention consists of the novel construction, arrangement, and relationship of parts or elements, whereby the described functions or results are accomplished, all as I will now proceed to explain in detail and then pointed out in the appended claims.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

In the drawings, Figure 1 is a front elevation of my improved vending-machine and displaying device. Fig. 2 is a sectional side elevation thereof taken on the line 2 2 of Fig. 1. Fig. 3 is a sectional rear elevation taken on the line 3 3 of Fig. 2. Fig. 4 is a rear elevation of the operative mechanism, the rear plate being removed. Fig. 5 is a detail view of the stopping mechanism. Fig. 6 is a detail view of the means for raising the plunger. Fig. 7 is a detail view of the coin-chute or raceway leading from the coin-inserting slot in front of the machine to a point in the

interior, where it can act upon the releasing-lever.

In the drawings, *a* designates the frame or casing, which is preferably inclosed on all sides, the front *b* being of glass.

c is a partition dividing the case into two compartments *d* and *e*. In the front compartment *d* the bottles or other receptacles *f* containing the liquid to be vended are placed so that they may be exposed to view through the glass front *b*. The rear compartment *e* is made to contain the mechanism which operates to discharge the liquid from one of the bottles or receptacles *f*. The said mechanism may be described as follows: Supposing that the liquid in the center bottle of three arranged in a row in the compartment *d* is to be acted upon, a discharge-tube *g* will be inserted through the cork *h* of said bottle, so that it will extend down into the liquid, its upper bent end extending through an opening *i* formed in the front of the casing. Another tube *j*, extending through the cork *h*, will be connected with the compressible air-bulb *k*, which is supported in a metallic or other rigid bracket or frame *l* and adapted to be operated on the principle of the bulb of an atomizer or syringe.

m designates a barrel containing a spring, (not shown,) which may be wound up like the spring of a clock, and which is constructed and arranged so as that it may when permitted turn the wheel *n*, which engages the pinion *o*, with which the toothed wheel *p* is compounded. The latter wheel engages the pinion, *q* with which the toothed wheel *r* is compounded. The wheel *r* engages and drives the pinion *s*, with which the toothed wheel *t* is compounded, the latter wheel engaging and driving the pinion *n* on the shaft of the governing device *v*.

w is a lever pivoted at its rear end to the frame of the operative mechanism and connected at its front end to the front end of a slightly-overbalanced lever *x*, pivoted at *y*, and having its rear end provided with a curved plate *z* or other similar means extended under the discharge end of the coin-chute or raceway *a'*, so that a coin passing through the raceway may fall upon the plate *z*, depress the rear end of the lever *x*, and raise its for-

ward end and the forward end of the connected lever *w*. On the shaft to which the plunger *q* and toothed wheel *r* are secured is a disk *b'*, provided with a notch in its periphery.

5 Said disk is arranged directly beneath the lever *w*, which is provided with the lug *c'* on its lower side adapted to ride on the periphery of the disk *b'* and to fall into the said notch when the latter is in its uppermost position, 10 as is shown in Fig. 5. The lever *w* is also provided with a depending finger *d'*, adapted when the said lever is in lowered or normal position, as shown in the last-mentioned figure, to come into contact with a laterally-extending pin *e'*, connected with the toothed 15 gear-wheel *t*, and stop the rotation of the said wheel and the whole train actuated by the spring in the barrel *m*.

f' is a lever pivoted at its rear end and provided on its front end with a plunger or presser 20 *g'*, adapted when the forward end of the lever *f'* is raised to pass upward against and compress the bulb *k*. The said lever *f'* is provided on its lower side with a lug *h'*, which is 25 adapted to be engaged by one of a series of laterally-extended pins *i'* from the toothed gear-wheel *p*, as is clearly shown in Fig. 6, so that when the said toothed wheel *p* is rotated, or partially rotated, one of said pins *i'*, acting 30 on the lug *h'*, will raise the said plunger-lever so that the plunger will compress the bulb until the pin *i'* shall pass from under the lug *h'*, when the lever will drop by gravity to the position shown in the last-mentioned figure.

35 *j'* designates a spring acting on the lever *x* merely to assist in counterbalancing the same. When it is convenient to counterbalance the lever *x* in any other way or ways this spring may be dispensed with.

40 *l'* is a receptacle for the coin passed through the chute *a'*.

In the use of the invention a coin may be inserted in the slot *k'* in front of the casing, and the said coin running down the chute or 45 raceway *a'* will fall upon the plate *z* and depress the rear end of the lever *x*, raising its front end and the front end of the lever *w*, with which it is connected. This action will raise the lug *c'* of the said lever *w* out of the 50 notch in the disk *b'*, so that said lug may rest on the raised portion of the periphery of said disk and hold the said lever *w* raised. At the same time the depending finger *d'* will be released from the pin *e'* of the gear-wheel *t*, 55 and the spring in the barrel *m* will set the mechanism in motion. Under these conditions the wheel *p* will be partially turned, so that the pin *i'* under the lug *h'* will raise the lever *f'*, causing the attached plunger *g'* to 60 be raised, compressing the bulb *k*, forcing the air therein through the tube *j* into the bottle *f*, and at the same time thereby forcing a quantity of the liquid therein out through the tube *g* and the aperture *i*. After the disk 65 *b'* shall have made a complete revolution the lug *c'* of the lever *w* will drop into the notch in the periphery thereof, the said lever will

fall by gravity, and the depending finger *d'* will be brought down into position to engage 70 the pin *e'* of the wheel *t* and stop the movement of the mechanism. During the operation the pin *i'*, acting under the lug *h'*, will have passed from under said lug, allowing the lever *f'* and attached plunger *g'* to drop, releasing the bulb *k* and permitting it to 75 again fill with air and to be put in readiness for another operation. By providing the case with the glass front *b* and arranging the bottles *f* therein, the user of the machine is given opportunity to see the character or kind of 80 liquid that may be delivered and to see when the liquid is exhausted, and the proprietor is afforded an opportunity of displaying and advertising his goods. By the provision of the aperture *i*, considerably larger in diam- 85 eter than the end of the tube *g*, and the provision also of the false hole or port *i''* in the casing, mischievous persons are prevented from securing a discharge of liquid from the bottle or receptacle *f* by an attempt to blow 90 into the tube *g*.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it 95 may be made or all of the modes of its use, it is declared that what is claimed is—

1. A coin-operated liquid vending machine comprising in its construction a front compartment *d*, a rear compartment *e*, and a vertical 100 partition *c* dividing the two compartments, the front compartment being adapted to support in upright position glass vessels containing the liquid, and having a glass front through which the liquid receptacles may be 105 displayed, and the rear compartment being adapted to contain and support the coin-operated mechanism, a delivery tube passed through the stopple of one of the said receptacles into the liquid therein, a compressible 110 bulb, a second tube communicating between the interior of the bottle and said bulb, and a plunger for acting upon the said bulb to compress it intermittently, said plunger being operatively connected with said coin- 115 operated mechanism.

2. A coin-operated liquid vending machine comprising in its construction a liquid receptacle, a delivery tube, a compressible bulb, a tube connecting said bulb with said receptacle, a plunger for compressing said bulb, a motor for operating said plunger and having a wheel with pins, a lever adapted to engage 120 said pins and hold said motor in a state of rest, a second spring held lever engaging the first said lever, and having a coin receiving plate, whereby when a coin is dropped on said plate the first said lever will be freed momentarily from said spring held lever, and the motor will actuate said plunger, substantially as set forth. 125

3. The combination, with the compressible bulb, of a lever, a plunger connected therewith adapted to operate on the bulb to com- 130

press the same, the said lever having a dependent lug, a wheel provided with pins adapted to act on said lug and raise the lever and to allow the latter to fall after the pins shall have passed from under the lug, and means to intermittently rotate said wheel, substantially as set forth.

4. The combination, with spring-actuated gearing, of a wheel *l* provided with a laterally projecting pin, a lever *m* provided with a lug and a finger the latter being adapted to engage said pin, and stop the movement of the mechanism when the lever is down, a disk provided in its periphery with a notch to receive the lug on the lever, coin-controlled means for raising the lever to release the fin-

ger from said pin and allow the mechanism to operate, a wheel *p* comprised in said spring-actuated gearing, provided with a laterally projecting pin *i'*, a compressible bulb, a plunger adapted to act upon said bulb, and a lever *f'* to which the said plunger is attached and provided with a lug upon which the pin *i'* is adapted to act, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 9th day of January, A. D. 1895.

DAVID E. WHITTON.

Witnesses:

ARTHUR W. CROSSLEY,
C. C. STECHER.