

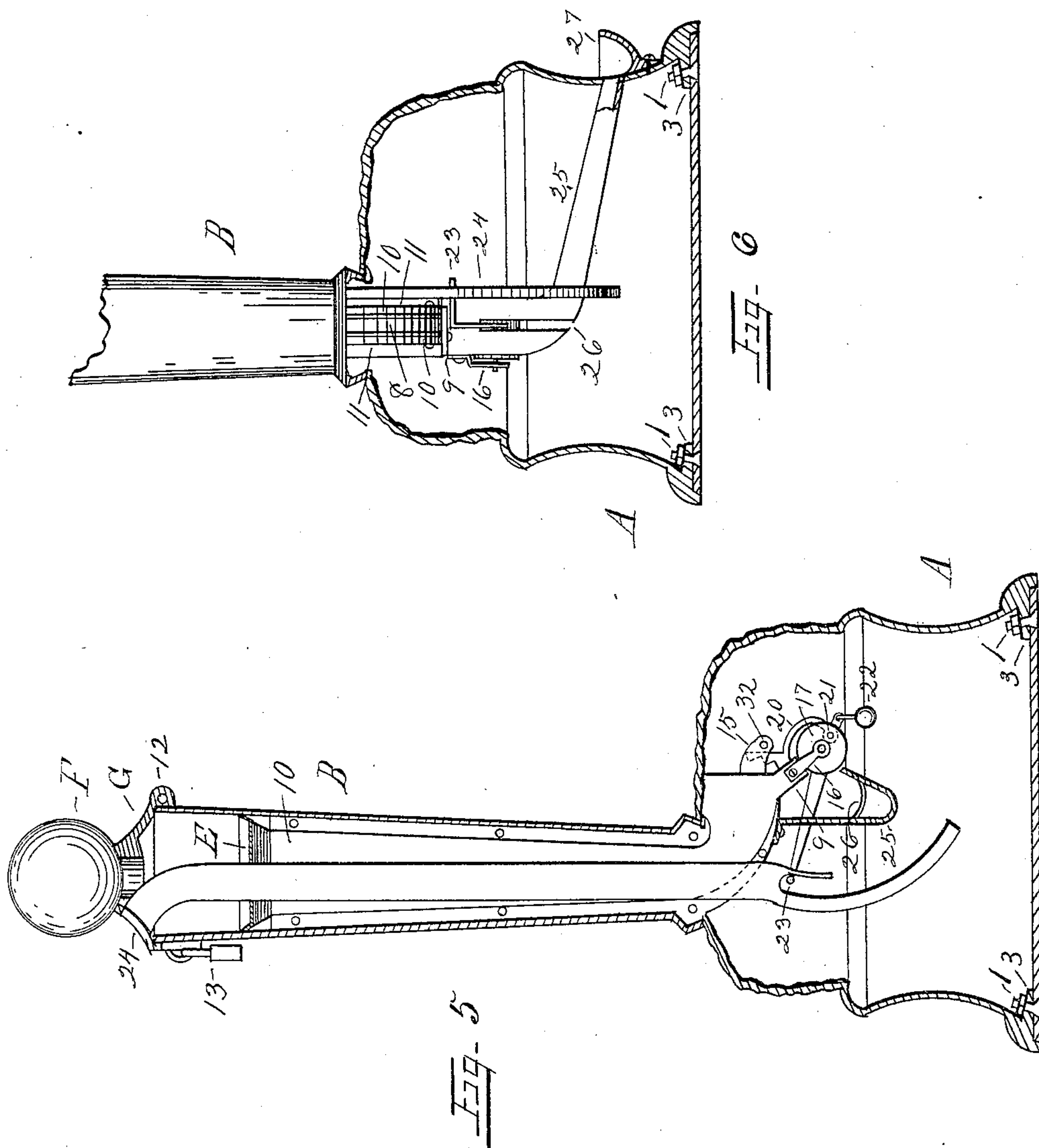
No. 791,990.

PATENTED JUNE 6, 1905.

V. E. RANDALL.
VENDING MACHINE.

APPLICATION FILED JAN. 11, 1904.

3 SHEETS—SHEET 2.



Witnesses,
E. A. Vannant.
P. Peter

Inventor
Victor E. Randall

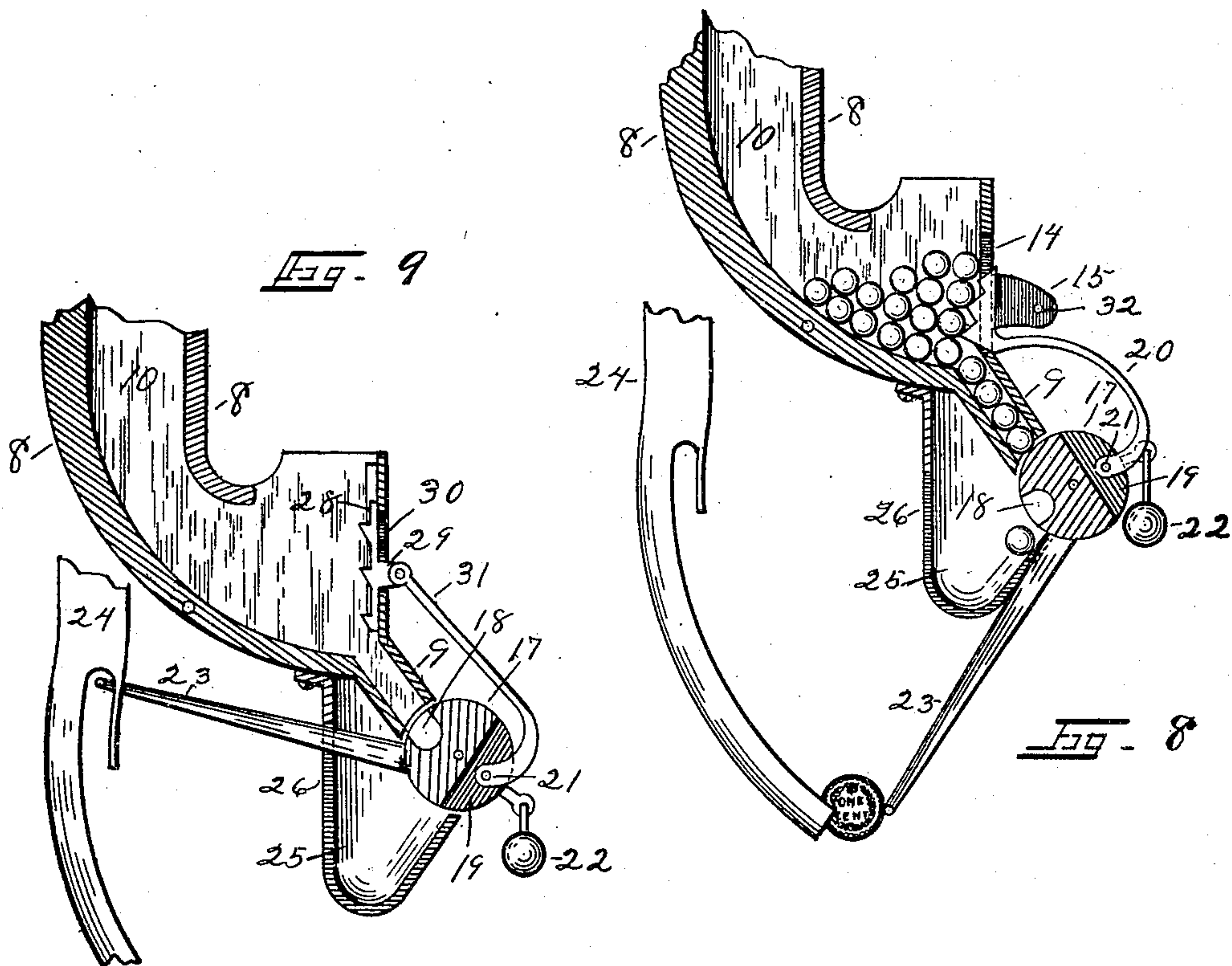
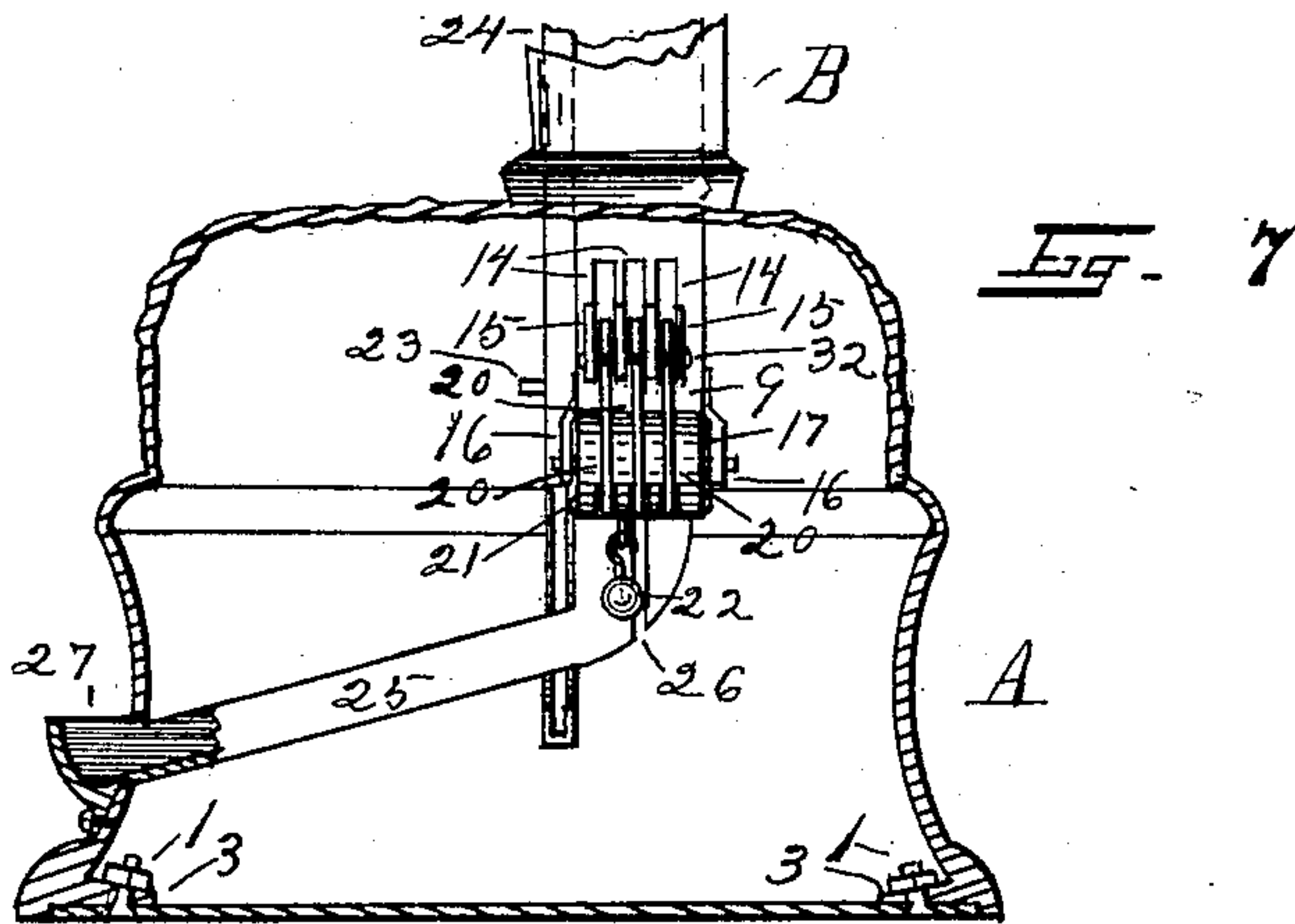
No. 791,990.

PATENTED JUNE 6, 1905.

V. E. RANDALL.
VENDING MACHINE.

APPLICATION FILED JAN. 11, 1904.

3 SHEETS—SHEET 3.



Witnesses

E. C. Varnant
J. P. Pester

Inventor

Victor E. Randall

UNITED STATES PATENT OFFICE.

VICTOR E. RANDALL, OF BATTLECREEK, MICHIGAN, ASSIGNOR TO OSCAR SAUERMAN, OF BURLINGTON, MICHIGAN.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 791,990, dated June 6, 1905.

Application filed January 11, 1904. Serial No. 188,432.

To all whom it may concern:

Be it known that I, VICTOR E. RANDALL, a citizen of the United States, residing at Battlecreek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to vending-machines, and more particularly relates to that class of machines for dispensing articles in globular form, such as pills, &c.; and the object of the present invention is to construct a machine of its class that will be very simple in construction, positive in operation, neat and artistic in appearance, cheap to manufacture, and whereby the machine will operate from the gravity of a penny or one-cent coin passing through the same, whereby the machine cannot readily be operated with a wire or other contrivance nor be made to eject a charge through inverting or jarring the machine.

With these objects in view I will now proceed to describe my invention, reference being had to the accompanying drawings, and to the letters and figures marked thereon, which form a part of this specification.

Figure 1 represents a perspective view of my improved vending-machine with a statuette mounted thereon. Fig. 2 is a vertical cross-section on a line with the actuating trip-lever. Fig. 3 is a cross-section of the pill-column on the line *xx*, Fig. 2. Fig. 4 is a cross-section of the pill-column on the line *aa* of Fig. 2. Fig. 5 is a vertical cross-section on the line *oo* of Fig. 3 and shows the coin-chute and the actuating trip-lever in position for operating the machine. Fig. 6 is a cross-section of the base parallel with the vending-cylinder on the actuating-trip-lever side. Fig. 7 is a cross-section of the base parallel with the vending-cylinder to the rear of the trip-lever. Fig. 8 is a detail longitudinal cross-section of the vending-machine, showing the actuating trip-lever in the mode of rolling the vending-cylinder to eject a charge of pills. Fig. 9 is a detail longitudinal cross-section in modification of Fig. 8.

The base A of the machine may be constructed of any desired material and form.

In the preferred form the same is circular, with an elevated rustic top, upon which are mounted the pill-supply receptacle or column B and an ornamental statuette C. Within one side of the base a door D is provided, and it may be hung and secured to the base in any manner customary to the art, and the bottom may be secured as may be found expedient and, as herein shown, is secured by bolts 1, passing through the bottom and the lugs 3, to the upper base-section.

Preferably the column B comprises four sides set rectangular, as shown, the sides resting against ribs 5 5, &c., to the sides 6 6, bolts 7 7 connectively uniting the sides 6 6 intact.

Located upon the top of the column B a glass globe F or other fixture may be placed, as shown. In this instance the globe is set within a surmounting cap G by plaster-of-paris or other suitable cement and the latter secured to the column through the medium of the hinge connection 12 and the lock and clasp 13.

Within the upper end of the column B a tapering-shaped hopper E is provided, the bottom of which communicates with the triple uniformly-spaced chambers hereinafter described.

Upon the inner longitudinal dimension of the sides 4 4, at a point below the hopper E and curving within the base of the machine, ribs 8 8 are provided. Connectively uniting these ribs upon either side thereof below said hopper and terminating at the lower end of the pill-exit 9 thin metallic partitions 10 10 are placed. At either side of the ribs 8 8 and impinging said partitions plano-concaved metallic sides 11 11 are secured, the concavities of said sides corresponding to the cross breadth between the partitions 10 10, the spaces inclosed between the sides forming triple uniformly-spaced chambers extending the whole length of the pill-column B from the hopper E to the terminus of the pill-exit 9, each of said spaces being of a width sufficiently large for the admission of one tier of pills, the object of the partitioned chamber being to guide the pills singly to the exit 9 aforesaid, the latter

being likewise chambered, and supplying them to uniformly-spaced pockets within the pill-vending cylinder 17.

Within the base and terminating the pill-column a thin downwardly-protruding tube or pill-exit 9 is located, and to one side, and designated as its "rear," the upper extremity thereof by preference is vertical and is provided with vertical slits or apertures 14 14, &c., and at either side of said apertures division strips or guides 15 15 extend outwardly, as shown.

At either side of the cross-breadth of the pill-exit tube 9 extensions 16 are provided, and within the arms thus formed an oscillating roller 17 is axially mounted. This roller is provided with axially-alined pill-pockets 18 and when hung lies parallel with the terminus of the exit-tube 9 and when in a normal position, as shown in Figs. 2, 5, 6, 7, and 9, has its pockets individually communicative with coincident compartments to the pill-column exit. To the rear of said cylinder the same is provided with diametrical slits 19, Figs. 2, 8, and 9, within which are introduced the lower ends of agitating-levers 20 20, the upper forward ends of which are sutured and lie between the guides 15 15 at either side of the slits 14 14, through which said sutured ends are adapted to pass in the operation of the machine.

A cross-tie 32 connects the guides 15 and forms a barrier for preventing the levers 20 from being thrown backward on their journals and out of a working position should the machine become tilted on its base from handling or otherwise.

Longitudinally passing through the cylinder in line with the slits 19 a pin 21 is passed and forms a pivot to which said levers are mounted.

To the side of the cylinder from which the agitating-levers are mounted a weight 22 is hung.

Forward of the cylinder a coin-actuating trip-lever 23 is secured. This lever preferably has its extremity curved and is placed to intersect the path of a coin in its passage down the coin-chute 24, the lower extremity of said chute being cut away upon its interior and curving concentric to the path inscribed by the lever 23 in the operation of the machine.

The coin-chute 24 may be arranged to the forward, rear, or side of the pill-vending column and communicates at its upper extremity with a communicative slot in the cap or top G. Said chute in this instance is arranged to the side of the pill-column.

Supported beneath the curved extremity of the pill-chamber a pill-exit trough 25 is provided. This trough has a widened upper extremity and is bisected crosswise, forming a slot 26, through which the thin actuating

trip-lever 23 may pass in the operation of the machine, the lower extremity of said trough terminating in a pocket 27 on the exterior of the base A.

In the modification, Fig. 9, in lieu of the agitating-levers 20 20 I provide a rectangular slide 28, having teeth upon its inner face coincident to the chambered compartments of the pill-receptacle and vertically operative between the rear wall of the pill-chamber and a cut-out portion of the partition to said chambers. A pivoted bearing 29, protruding through a vertical slot 30 in the wall of the pill-chamber and connectively pivoted to a lever 31, operates the same from said cylinder.

By the provision of the individual spacing of the pill-receptacle into separate chambers terminating at the pill-exits and the agitating-levers 20, each communicative with a separate chamber at a point above said exits, the pills located within said chambers are constantly agitated and prevented from bunching, thus insuring the exit-tube 9 to always fill.

The operation of my improved machine in the main will have been apparent from the foregoing description. The pill-chamber having been supplied with pills, the cover and door locked, parties wishing to avail themselves of pills will drop a coin within the chute 24. As said coin makes its passage through the machine it will cause the actuating-trip 23 to roll the vending-cylinder 17 forward, as shown in Fig. 8, and eject a charge into the egress-trough, and from thence they will pass into the pocket 27. As the cylinder rolls forward the levers 20 20, &c., will pass up and into the pill-chamber through the slots 14 and loosen the pills, so that they will enter the exit-tube 9. The coin having passed the end of the coin-chute will drop into the base A. The weight 22, together with the gravity of the levers 20 20, &c., will cause the lever 23 to regain its normal position. It is found that the weight 22 may be obviated when the levers and the cylinder are specially balanced.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with an oscillating vending-cylinder and means for actuating the same, of a multiple pill-receptacle each compartment of which is adapted to receive a single tier of pills, the lower end of said receptacle terminating in an elongated exit-tube communicative with a separate alined compartment in said vending-cylinder, substantially as and for the purpose set forth.

2. The combination with an oscillating vending-cylinder and means for oscillating the same, of a multiple pill-receptacle, each compartment of which is adapted to receive a single tier of pills, the lower end of said receptacle terminating in an elongated exit-tube, each compartment of which is adapted to re-

ceive but one file of pills, each compartment of said exit-tube being communicative with a separate alined compartment in said vending-cylinder, substantially as and for the purpose set forth.

3. A pill-receptacle comprising multiple longitudinal chambers opening into a common hopper and a terminating exit-tube, a vending-cylinder apertured to register with said exit-tube, apertures above said exit-tube, guides between said exits, sutured levers communicating with said apertures and operative from said vending-cylinder, an exit-trough leading from said cylinder, to a pocket in the base, and means for actuating said vending-cylinder, substantially as arranged and for the purpose set forth.

4. A pill-receptacle comprising a column, two of whose sides have internal diametrically-opposed ribs, partitions connectively uniting on either side thereof, plano-concave sides impinging said partitions at their edges, a hopper terminating the upper end of said column and communicating with chambers formed between said partitions and their connective sides, and a pill-exit tube terminating a curved lower end of said receptacle, substantially as and for the purpose set forth.

5. A pill-receptacle comprising multiple longitudinal chambers opening into a common hopper, and a terminating angular exit-tube

chambered coincident to said multiple receptacle, said tube adapted to admit of but one file of pills to each chamber, a vending-cylinder apertured to register with said exit-tube, 35 vertical longitudinal apertures above said exit-tube, guides between said exits, sutured levers communicating with said apertures and operative from said vending-cylinder, a cross-tie uniting said guides adapted to retain said 40 levers thereinbetween, an exit-trough leading from said cylinder, and means for actuating said vending-cylinder, substantially as set forth.

6. The combination of a vending-machine 45 comprising a base, a door in said base, a multiple-chambered pill-receptacle mounted on said base, a hopper communicative at its upper extremity with said receptacle and a terminating angular exit-tube chambered to admit of but one file of pills from each compartment of said receptacle, a detachable cover surmounting said hopper, a vending-cylinder 50 chambered to register with said exit-tube, an exit-trough leading from said cylinder to a pocket in the exterior of said base, and means 55 for actuating said vending-cylinder, substantially as, and for the purpose set forth.

VICTOR E. RANDALL.

Witnesses:

GEO. E. ROWELL,
FRED W. LOOMIS.