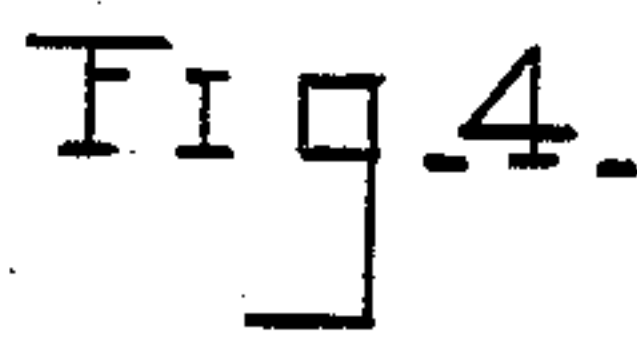
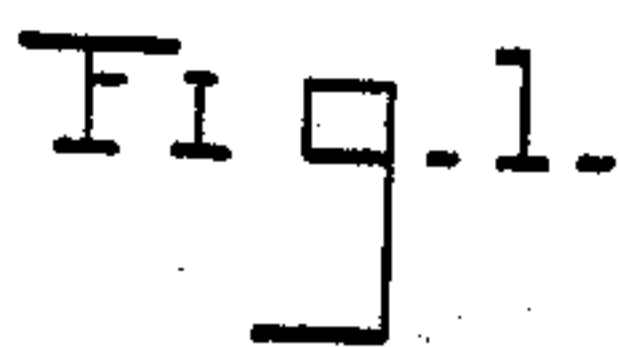


APPLICATION FILED NOV. 22, 1907.

Patented June 1, 1909.

3 SHEETS—SHEET 1.



Chas. J. Jennings
L. O. Little

3

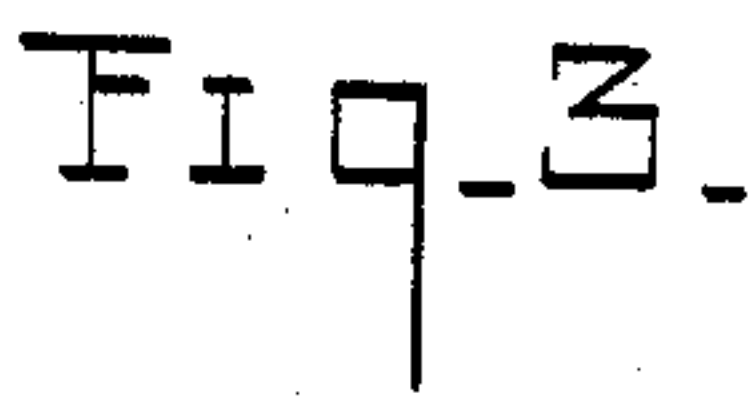
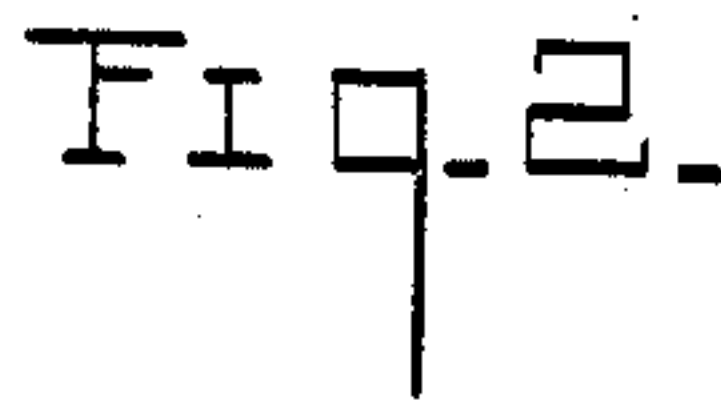
Inventors
W. E. Bishop
J. F. Chaple

By
Watson E. Coleman
Attorney


APPLICATION FILED NOV. 22, 1907.

Patented June 1, 1909.

3 SHEETS—SHEET 2.



Chas. T. Jennings
L. O. Little


 M. E. Bishop
 J. F. Chaple
 Inventors
 By Watson & Coleman
 Attorneys

W. E. BISHOP & G. F. CHAPLE.
VENDING APPARATUS.

APPLICATION FILED NOV. 22, 1907.

923,132.

Patented June 1, 1909.

3 SHEETS—SHEET 3.

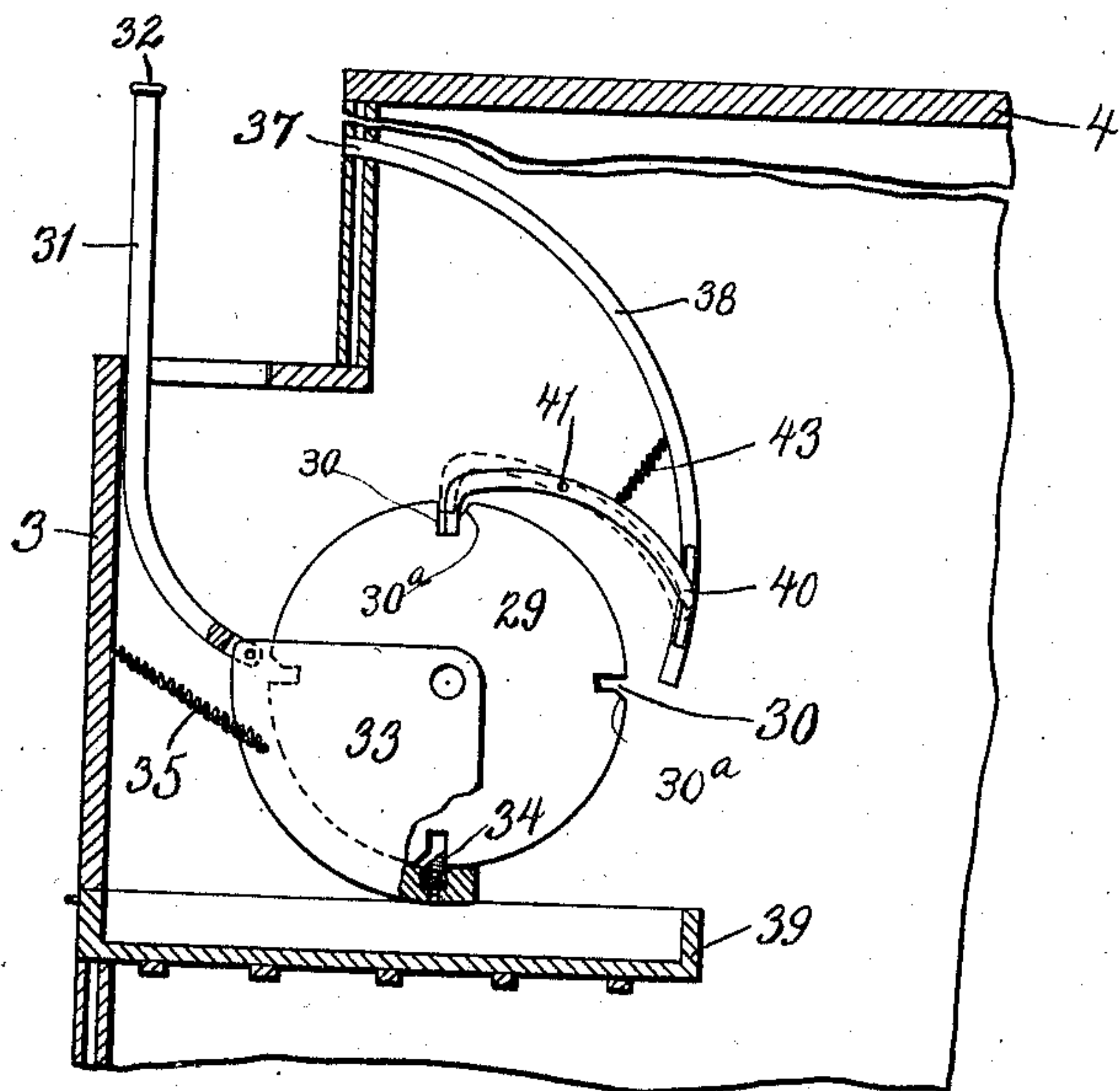


FIG. 5.

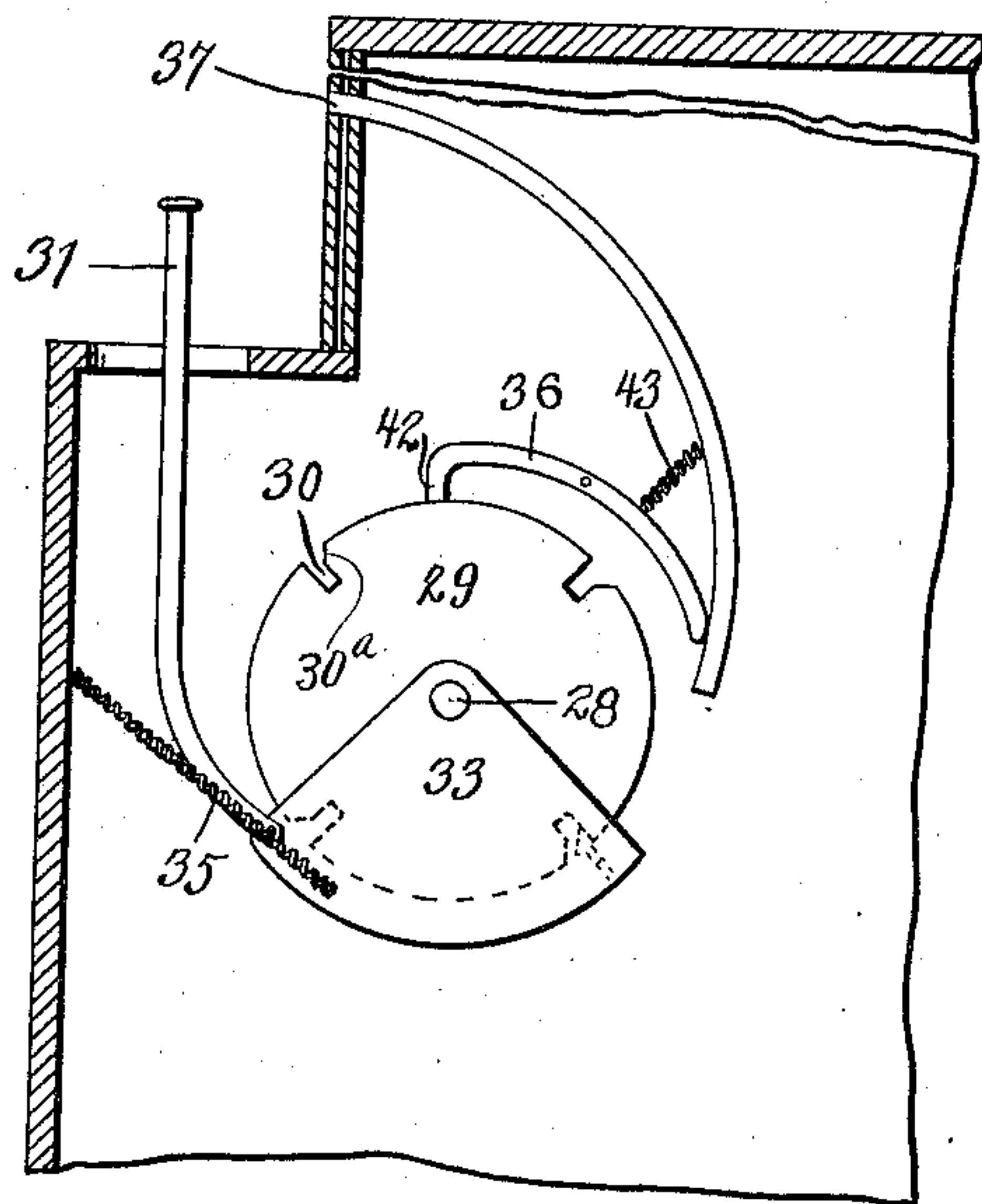


FIG. 7.

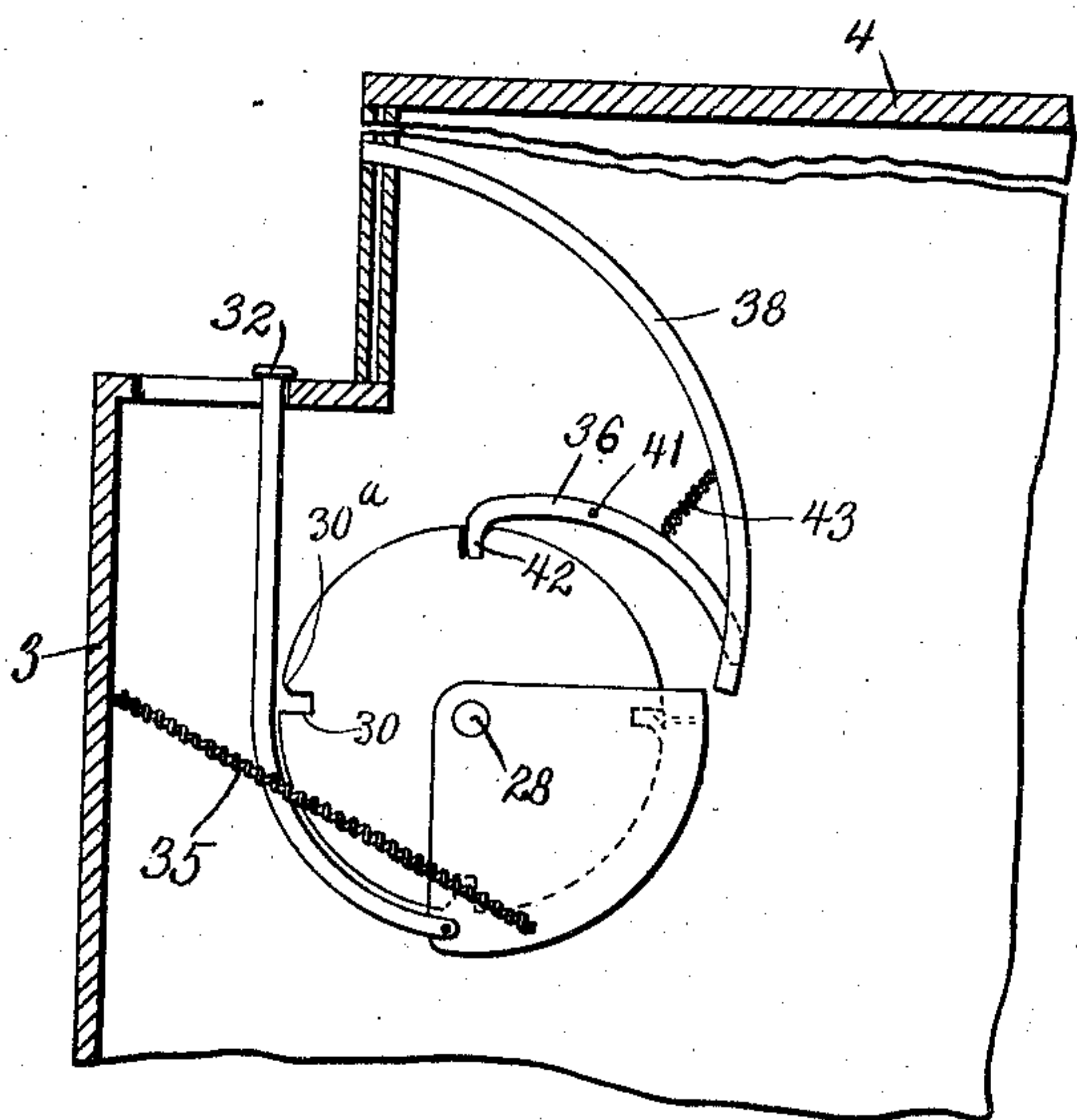


FIG. 6.

Witnesses

Chas. T. Jennings
L. O. Little

By

W. E. Bishop
G. F. Chaple
Watson E. Coleman
Inventors
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM E. BISHOP AND GEORGE F. CHAPLE, OF BREVARD, NORTH CAROLINA.

VENDING APPARATUS.

No. 923,132.

Specification of Letters Patent.

Patented June 1, 1909.

Application filed November 22, 1907. Serial No. 403,261.

To all whom it may concern:

Be it known that we, WILLIAM E. BISHOP and GEORGE F. CHAPLE, citizens of the United States, residing at Brevard, in the county of Transylvania and State of North Carolina, have invented certain new and useful Improvements in Vending Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

Our invention relates to improvements in apparatus or machines for vending cold bottled drinks such as soda water.

The object of the invention is to provide a simple, practical, and inexpensive apparatus of this character which will be durable and reliable in use.

With the above and other objects in view the invention consists of the novel features of construction and the combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of our improved bottle vending apparatus; Fig. 2 is a vertical longitudinal section through the same; Fig. 3 is a similar transverse section; Fig. 4 is a detail horizontal section taken on the plane indicated by the line 4—4 in Fig. 2; Figs. 5, 6 and 7 are detail sectional views showing the controlling and operating mechanism with its parts in different positions.

The apparatus comprises a body or casing 1 which may be of any suitable form and construction but as here shown is substantially rectangular and adapted to contain mechanism for delivering two or more kinds of cold drinks, these mechanisms being the same and mounted on opposite sides of the transverse center of the casing, and in its upper portion. This upper portion of the casing is of slightly less width than the lower portion so as to provide at the front of the casing two delivery receptacles or pockets 2, one being provided for each of said mechanisms and the two being separated by an extended portion 3 of the casing in which latter a portion of the controlling mechanism is arranged as presently described.

The top of the casing is open and adapted to be closed by a cover or lid 4 which is preferably hinged and which may be provided with a suitable lock. In the front of the casing we form an opening

adapted to be closed by a hinged door 5 also provided with a suitable lock. This door permits of access to the lower portion of the casing in which is arranged a partition 6 adapted to divide said lower portion into two chambers 7, 8. The lower chamber 8 may be used for storing boxes, bottles or the like and the upper one is adapted to receive empty bottles which may be delivered to the same and deposited upon the partition or shelf 6 by placing them in an inclined chute 9 arranged in one end of the casing. The outer end of the chute 9 is preferably closed by an inwardly swinging hinged door 10 which is actuated to its closed position by a spring 11. We also preferably mount upon the last mentioned end of the casing a bottle opening device 12 which may be of any suitable form and construction and which is arranged above a tubular chute 13 having its lower end opening into the chamber 7 and adapted to receive the bottle stoppers.

The upper portion of the casing beneath the lid or cover 4 is adapted to serve as a refrigerator and arranged within it is an ice box or receptacle 14 preferably formed with a downwardly and forwardly inclined bottom 15 and a downwardly and rearwardly inclined top 16 which latter is hinged at its rear so as to form a cover or lid for the ice box. The front wall of the ice box is secured to the inner face of the front wall of the casing and the rear wall 17 of said box is spaced from the inner face of the rear wall of the casing a distance sufficient to permit the bottles B to pass downwardly between said walls from the inclined top 16 of the box to the endless carriers 18 of the two delivery mechanisms above mentioned. By constructing and mounting the ice box in this manner it will be seen that the bottles will feed downwardly by gravity to the carriers 18. Vertical guides 19 are arranged centrally in the refrigerator compartment so as to guide the two rows of bottles. The ice box is provided with a drip tube 14^a which leads into the compartment or chamber 7 and discharges into a removable pan 14^b arranged on the shelf or partition 6.

Since the bottle delivery mechanisms on each side of the casing are the same a description of one will suffice for both. This mechanism comprises the endless carrier or conveyer 18 which as shown preferably con-

sists of two chains 20 connected by cross bars or slats 21 adapted to receive the bottles between them. These chains pass over front and rear rollers 22, 23 arranged in different horizontal planes adjacent to the front and rear walls of the casing so that the carrier has a downward and forward inclination. Arranged between the two stretches of the latter is an inclined board or support 24 down which the bottles roll as the carrier is actuated to deliver them to one of the receptacles or pockets 2 at the front of the casing.

An outwardly swinging hinged door 25 actuated to its closed position by a spring 26 is preferably mounted at the front of the casing to close the opening through which the bottles are delivered.

The chains 20 of the carrier engage sprockets 27 upon the front roller 22, which latter is adapted to serve as a driving roller and has upon the inner end of its shaft 28 a ratchet wheel 29. The latter is in the form of a disk formed in its periphery with notches or seats 30 which may be varied in number according to the size of the apparatus and the size of the bottles or other articles to be delivered by the apparatus. The notches 30 are of rectangular form and have one of their walls beveled at 30° for a purpose presently explained.

The ratchet wheel 29 is adapted to be actuated by a push rod or lever 31 a distance sufficient to cause the endless carrier 18 to deliver one bottle. The rod 31 is slidably mounted in the upper portion of the extended portion 3 of the casing and has at its upper end a finger piece 32 and at its lower end a curved portion which is pivoted to a pawl carrying lever 33 in the form of a segmental shaped plate pivoted on the shaft 28 as clearly shown in Figs. 5, 6 and 7 of the drawings. The lever 33 carries a sliding spring-projected pawl 34 to engage the notches 30 in the ratchet wheel 29. The lever is actuated in one direction by a coil spring 35.

From the foregoing it will be seen that when the finger piece 32 is depressed the lever plate 33 will be swung so that the pawl 34 will move the ratchet wheel a predetermined distance and that when said finger piece is released the spring 35 will restore said parts to their normal position shown in Fig. 5.

The ratchet wheel 29 is adapted to be locked by a detent or pawl 36 which is controlled by a nickel, coin or other check deposited in a slot 37 formed in the front portion of the casing 1. Said slot 37 communicates with an inclined coin chute 38 having its lower end arranged above a sliding cash drawer 39 provided with a suitable lock and arranged in the lower portion of the casing 3. Said lower end of the chute

38 is adapted to be closed by the rear end 40 of the detent 36 which latter is pivoted at 41 intermediate its ends and has its other end formed with a projection 42 to engage the notches 30 in the ratchet wheel 29. A spring 43 is attached to the detent for holding it in its normal position in which the projection 42 engages one of the notches 30 and its end 40 closes the lower end of the chute 38.

In operation, a nickel or other coin or check is deposited in the slot 37 and allowed to slide down the chute 38 upon the end 40 of the detent to tilt the latter so that its projection 42 is partially removed from the notch 30 of the ratchet wheel and disposed opposite the beveled portion 30° of said notch. The finger piece 32 on the push rod or lever is then actuated to swing the lever plate 33 and cause its pawl 34 to move the ratchet wheel 29 a distance sufficient to cause the endless carrier 18 to deliver one bottle upon its receptacle or shelf 2. When the ratchet wheel is thus rotated the beveled portion 30° of the notch 30 engaged by the end 42 of the pawl will force said end 42 out of the notch and thereby cause the other end 40 of the pawl to move entirely out of the coin chute 38 and release the coin so that it will drop into the drawer 39. When the finger piece 32 is released the springs 35 and 42 will return said parts to their normal positions shown in Fig. 5.

The above described operation will be understood from the foregoing and upon reference to Figs. 6 and 7 in which the former shows the parts in the position they assume when actuated to deliver a bottle and the latter the parts in the position they assume when returning to their normal position shown in Fig. 5.

While we have shown and described our invention as embodied in an apparatus for vending cold bottles it will be understood that it may be used for vending other articles. It will also be understood that it may be constructed so as to deliver one or more kinds of bottled drinks, packages or other merchandise.

Having thus described our invention what we claim is:

1. In a bottle vending apparatus, the combination of a casing having a removable top, an ice box arranged in the upper front portion of the casing and having a downwardly and rearwardly inclined top and a vertical rear wall spaced from the rear wall of the casing, whereby bottles placed upon the top of the ice box will feed downwardly by gravity and pass between its rear wall and the rear wall of the casing, a downwardly and forwardly inclined board arranged in the casing beneath the bottom of the ice box and adapted to receive and support the bottles, transverse shafts

disposed at the opposite ends of said board, sprocket wheels upon said shafts, an endless carrier consisting of sprocket chains engaged with said wheels and connected by cross bars, the latter being spaced apart to receive the bottles between them and to allow the latter to roll down said board and means for controlling the operation of one of said shafts to feed the bottles from the casing.

2. In a bottle vending apparatus, the combination of a casing having a removable top, an ice box arranged in the upper front portion of the casing and having a downwardly and rearwardly inclined top and a vertical rear wall spaced from the rear wall of the casing, whereby bottles placed upon the top of the ice box will feed downwardly by gravity and pass between its rear wall and the rear wall of the casing, a downwardly and forwardly inclined board arranged in the casing beneath the bottom of the ice box and adapted to receive and support the bottles, transverse shafts disposed

at the opposite ends of said board, sprocket wheels upon said shafts, an endless carrier consisting of sprocket chains engaged with said wheels and connected by cross bars, the latter being spaced apart to receive the bottles between them and to allow the latter to roll down said board, a bottle receiving receptacle upon the front of the casing, the latter being formed with a discharge opening adjacent to said receptacle and the lower end of said board, a swinging closure for said opening and means for controlling the operation of one of said shafts to feed the bottles through said opening in the casing and into the receptacle.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

WILLIAM E. BISHOP.
GEORGE F. CHAPLE.

Witnesses:

W. W. WATERS,
T. B. ALLISON.