R. J. MORRISON.

VENDING MACHINE.

APPLICATION FILED OCT. 22, 1907.

904,798.

Patented Nov. 24, 1908.

2 SHEETS—SHEET 1.

Fig. 1.

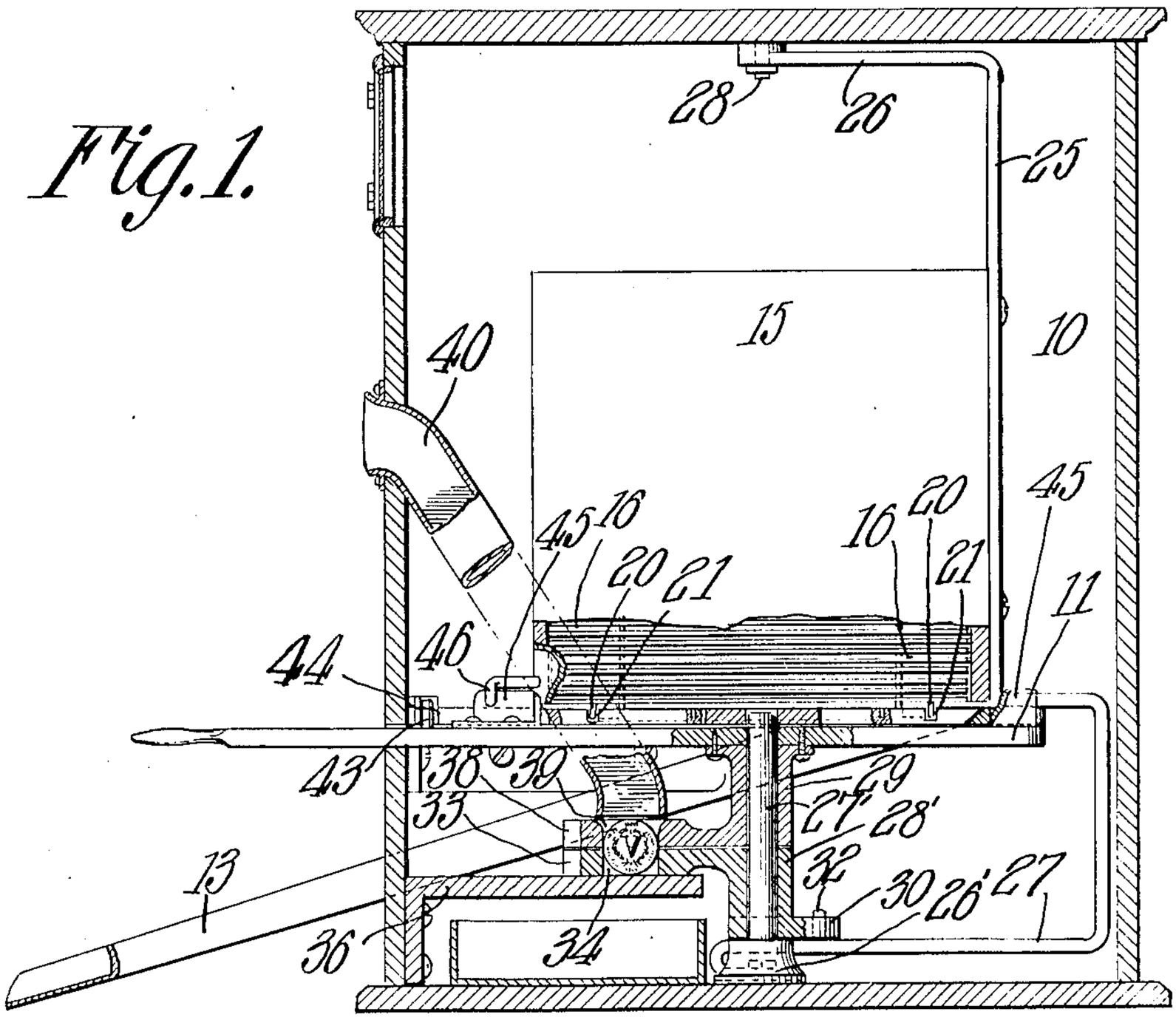
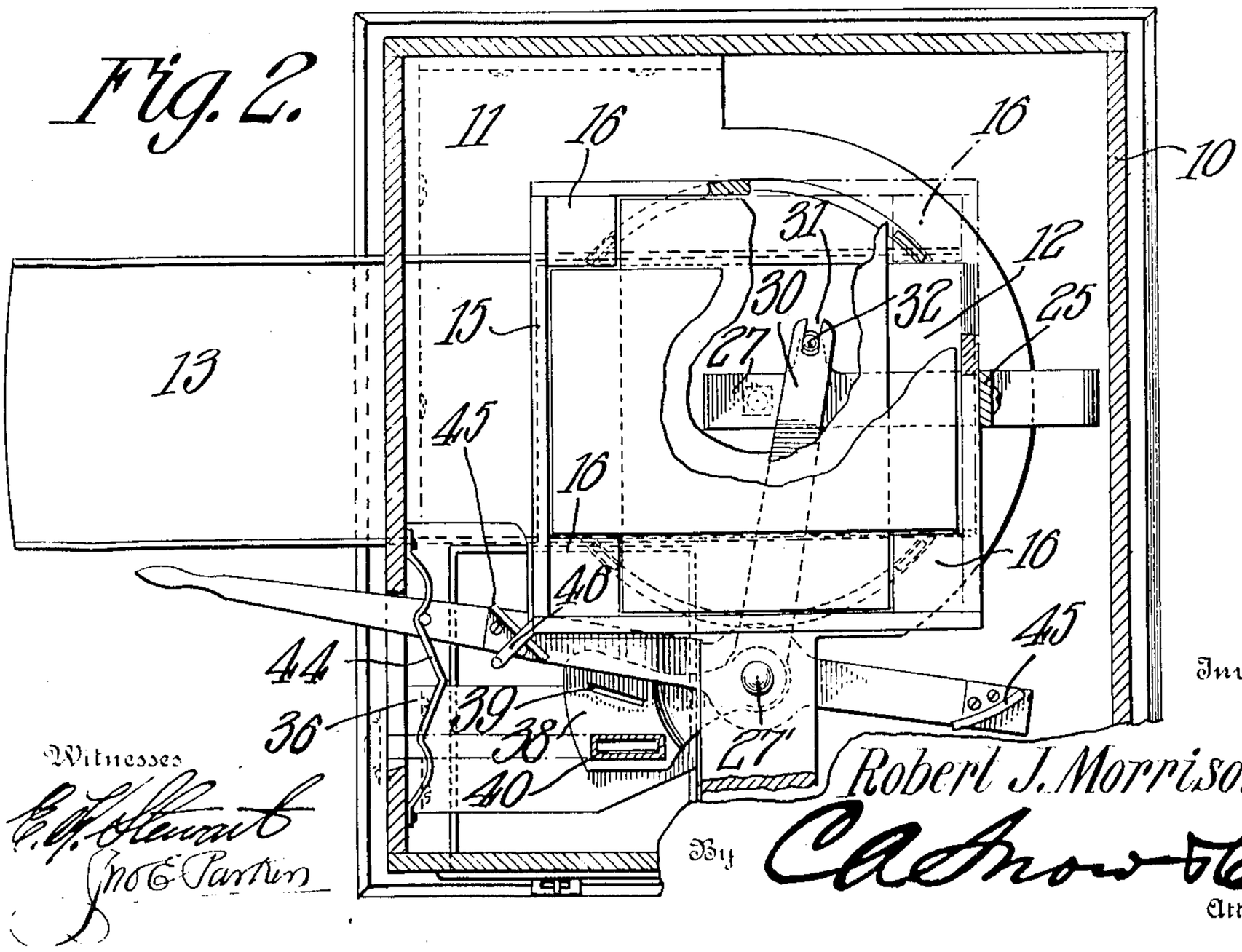


Fig. 2.



Witnesses

E. G. Steinmetz

Jno. E. Parker

Inventor

Robert J. Morrison,

By Cachow & Co.

Attorneys

R. J. MORRISON.

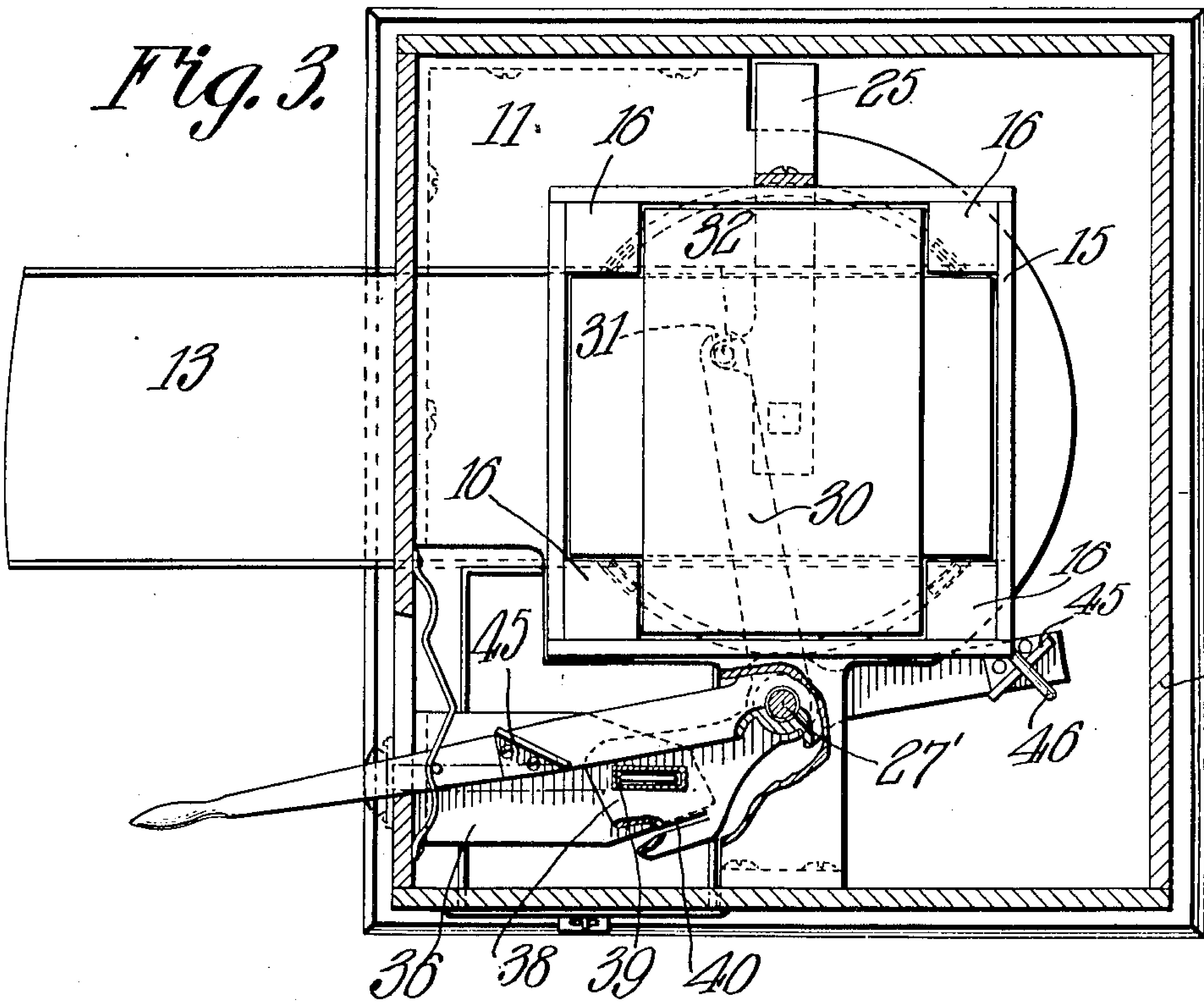
VENDING MACHINE.

APPLICATION FILED OCT. 22, 1907.

904,798. Patented Nov. 24, 1908.

2 SHEETS—SHEET 2.

Fig. 3.



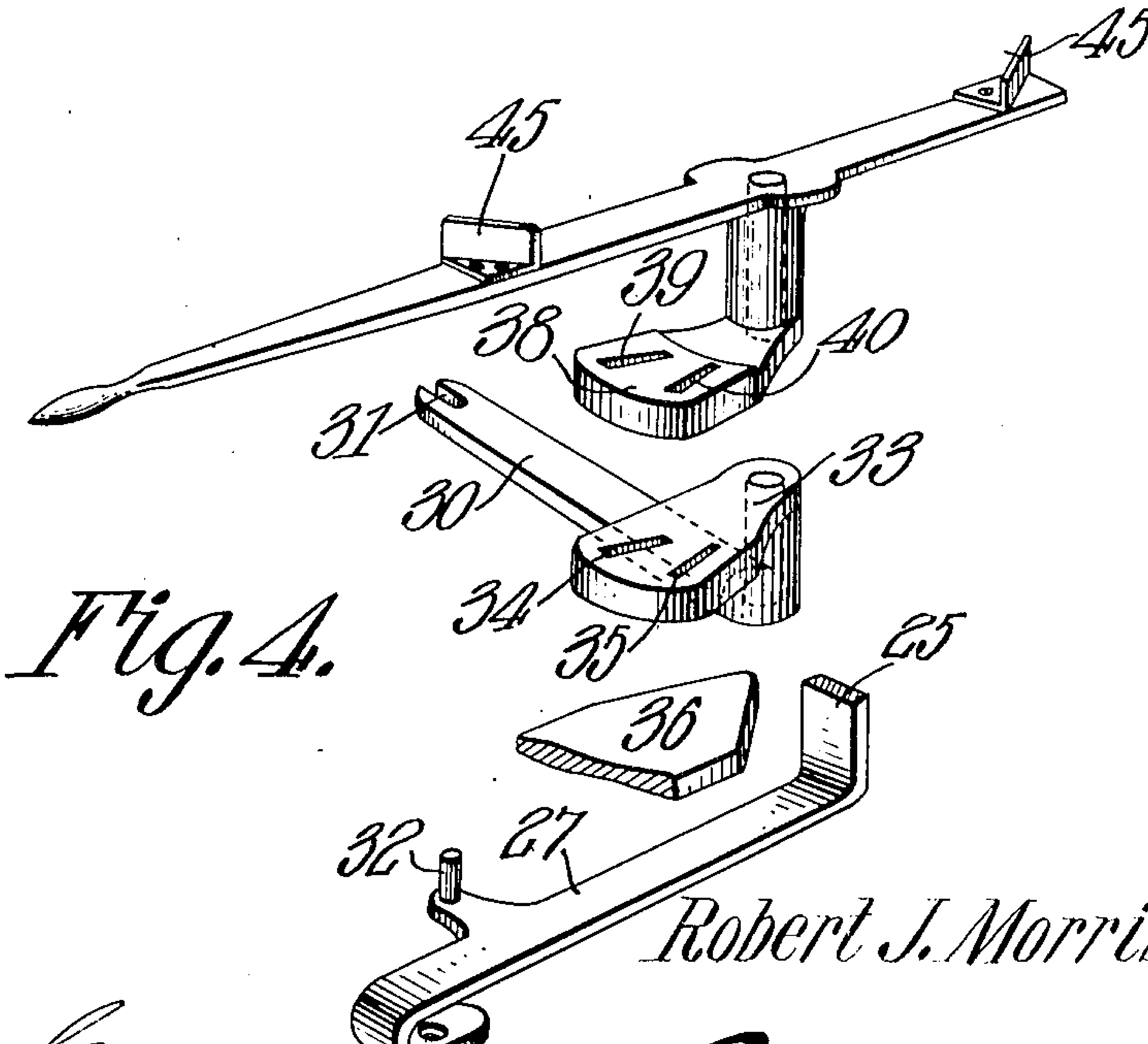


Fig. 4.

Witnesses

E. W. Stewart

Jno. E. Parker

Inventor

Robert J. Morrison,

By C. A. Snow & Co

Attorneys

UNITED STATES PATENT OFFICE.

ROBERT J. MORRISON, OF CHERRYVILLE, NORTH CAROLINA.

VENDING-MACHINE.

No. 904,798. Specification of Letters Patent. Patented Nov. 24, 1908.

Application filed October 22, 1907. Serial No. 398,626.

To all whom it may concern:

Be it known that I, ROBERT J. MORRISON, a citizen of the United States, residing at Cherryville, in the county of Gaston and State of North Carolina, have invented a new and useful Vending-Machine, of which the following is a specification.

This invention relates to coin controlled vending machines, and has for its principal object to provide a machine of novel construction that is designed more especially for the vending of postal cards, envelops, or similar articles.

A further object of the invention is to provide a machine in which the containing reservoir is pivotally mounted over a discharge opening, and is arranged to oscillate through an arc of ninety degrees in order to discharge the successively lowermost article, the postal cards and other articles being piled criss-cross fashion within the reservoir.

A still further object of the invention is to provide a novel form of reservoir operating mechanism, whereby the reservoir may be connected to a lever or similar operating member through the medium of an inserted coin or check, provision being made for effecting the discharge of an article by movement of the lever in either direction.

A still further object of the invention is to provide a device of this type in which the interlocking members are provided with two sets of coin slots that are alternately movable into alinement with the coin chute.

A still further object of the invention is to provide a means for locking the lever against movement in case a coin is not inserted.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a sectional elevation of a vending machine constructed in accordance with the invention. Fig. 2 is a plan view of the vending machine with some parts broken away and other parts shown in section. Fig. 3 is a plan view similar to that of Fig. 2 showing some of the parts in a different phase of operation. Fig. 4 is a perspective view of a portion of the operating mechanism with the parts separated.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

The working parts of the machine are inclosed within a suitable casing 10, which preferably includes a number of glass panels, so that advertising or other matter within the machine may be displayed. Extending horizontally across the casing is a partition 11 having an oblong delivery opening 12 through which the articles successively fall on to a slide or chute 13 by which they are directed out to a position within reach of the purchaser.

Resting on the partition 11 is an oscillatory reservoir 15, said reservoir being rectangular in form and provided at each of its corners with vertical filling posts 16, these serving as spacers and guides between the articles to be vended. As the machine is intended principally for the vending of postal-cards, the latter are arranged criss-cross fashion within the reservoir, the opposite ends of the lowermost card resting on the partition 11, and the discharge opening being of such a size that when the reservoir is turned through an arc of ninety degrees the lowermost card will be brought into alinement with the opening and will fall therethrough on to a discharge chute, while the next card will be caught by the partition and will serve as a support for the remainder of the column. The next movement of the reservoir in the reverse direction will bring this card to the discharge position and the following card will then rest on the partition 11, so that as the reservoir is oscillated through an arc of ninety degrees, the cards or other articles will be successively discharged. In some cases it may be desired to dispense two or three or more articles for a single coin and when this is the case, the articles are arranged in groups of a corresponding number.

In order to insure the movement of the lowermost card, the lower ends of the post

16 are provided with arcuate fingers 20 that are arranged to travel in grooves 21 formed in the upper face of the partition. These fingers will engage with the edges of the card or cards and will positively turn the same into alinement with the discharge opening.

The reservoir is supported by a strap 25 having upper and lower horizontal arms 26, 27, which are pivotally mounted on pins 28 carried by the top and bottom of the casing and in vertical alinement with the center of the reservoir. The vertical arm of this strap is rigidly secured to one side of the reservoir and forms a carrier therefor in order to reduce friction between the bottom of the reservoir and the partition.

In the lower portion of the casing is arranged a standard 26′ carrying a vertical stud 27′ on which are mounted two loose levers 28′ and 29, the lower lever having an arm 30 that is provided with an elongated slot 31 for the reception of a pin 32 that projects from the lower arm of the reservoir carrier, and by which movement is transmitted to said reservoir. The lever 28′ has an arcuate plate 33 in which are formed two coin slots 34 and 35, and below these is a bracket 36 forming a rest over which the slots are alternately positioned, the bracket forming first a stop for preventing the passage of a coin through the slot 34, and then acting in similar manner to prevent the passage of a coin through the slot 35.

The upper lever 29 extends out through a slot formed in front of the casing and is provided with a suitable operating handle. This lever is, also, provided with an arcuate plate 38 having a pair of coin slots 39 and 40 that aline with the slots 34 and 35, respectively, and all of the slots extend on lines radiating from the center of movement of the lever.

The coins are inserted through a chute 40 the discharge end of which is immediately over a plate 38, and during the operation of the machine, the slots 39 and 40 are brought alternately into alinement with the lower end of the chute, so that the first coin will enter the slots 39 and 34, and the second coin the slots 40 and 35.

When a coin has been inserted in the slots 39 and 34, the coin falls through until it rests on the bracket 36, and the two plates 38 and 33 are locked together. On manipulating the lever 29, and moving the same to the left, the movement will be transmitted through the plate 28′ and the coin to the plate 33, thereby turning the lower lever 28′ and transmitting movement through the arm 30 and the reservoir carrier to the reservoir, so that the latter will be turned through an arc of ninety degrees and will effect the discharge of the lowermost card.

When the lever movement is completed, the slots will have passed beyond the end of the bracket 36 and the coin will fall through the slots and pass to the bottom of the casing, or into a suitable receptacle. The parts are now in position for another operation, and at this time the two slots 40 and 35 are in position to receive a coin from the chute 40. If a coin is inserted, it rests on the bracket 36 and locks the two levers together, so that on movement of the main lever to the right, motion will be again transmitted to the reservoir and the latter will be rocked back to the first position, again discharging the lowermost article, while the coin passes beyond the end of the bracket and falls to the bottom of the receptacle.

The main operating lever is provided with a pin 43 with which engages a spring 44, said spring being designed to maintain the lever in either of the two positions to which it is moved. The spring will allow slight movement of the lever from either of these positions, and then if released the spring will turn the lever back to its original position. In order to prevent any movement of the lever from one position to the other without previously inserting a coin, the two ends of the lever 29 are provided with projecting stops 45 which are arranged to engage a lug 46 projecting from one corner of the reservoir. The lever may be moved in one direction or the other for a short distance before coming into contact with the stop, but if a coin has not been inserted the contact with the stop will prevent any further movement. If, however, a coin has been inserted, the lug will have cleared the member 45 before the latter moves into engagement therewith.

I claim:—

1. In a vending machine, a reservoir capable of oscillation about its axis, and an operating lever therefor capable of a like movement and normally disconnected from but adapted to be operatively connected to the reservoir, said lever having means movable into engagement with the reservoir when the lever is disconnected from the latter to lock said lever at either end of its path of oscillation when such movement is not participated in by the reservoir.

2. In a vending machine, a reservoir capable of oscillation about an axis and an operating lever therefor capable of a like movement and normally disconnected from but adapted to be connected to said reservoir for actuating the same, said lever having projecting stops on each side of its pivot movable into engagement with the reservoir at the beginning of its movement in either direction when such movement is not participated in by the reservoir.

3. In a vending machine, a casing, a partition arranged therein, said partition being provided with an oblong discharge opening

and having a series of arcuate grooves, a bottom discharge reservoir mounted above the opening and arranged to receive articles criss cross fashion, the corners of the reservoir being provided with guiding posts to separate the articles, and fingers depending from such corner posts and arranged to traverse the grooves to thereby insure engagement with the lower most articles resting on the partition.

4. In a vending machine, a casing, a horizontal partition arranged therein and provided with an oblong discharge opening, an oscillatory reservoir arranged above the partition, a reservoir carrying bar having horizontally disposed arms, one above the reservoir, and the other below the same, pivotal supports for said arms arranged in the vertical axis of the reservoir, and means for oscillating said support and reservoir carried thereby.

5. In a vending machine, a casing, a horizontally disposed partition arranged therein and provided with an oblong discharge opening, a rectangular, oscillatory reservoir mounted above the opening and arranged to receive articles criss-cross fashion, means for oscillating the reservoir, and means carried by the reservoir and arranged to engage the lowermost article resting on the partition.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROBERT J. MORRISON.

Witnesses:
JAS. M. WALKER,
A. F. MCCARTY.