

(No Model.)

4 Sheets—Sheet 1.

H. C. VIERKANT.  
COIN CONTROLLED VENDING MACHINE.

No. 592,071.

Patented Oct. 19, 1897.

Fig. 1.

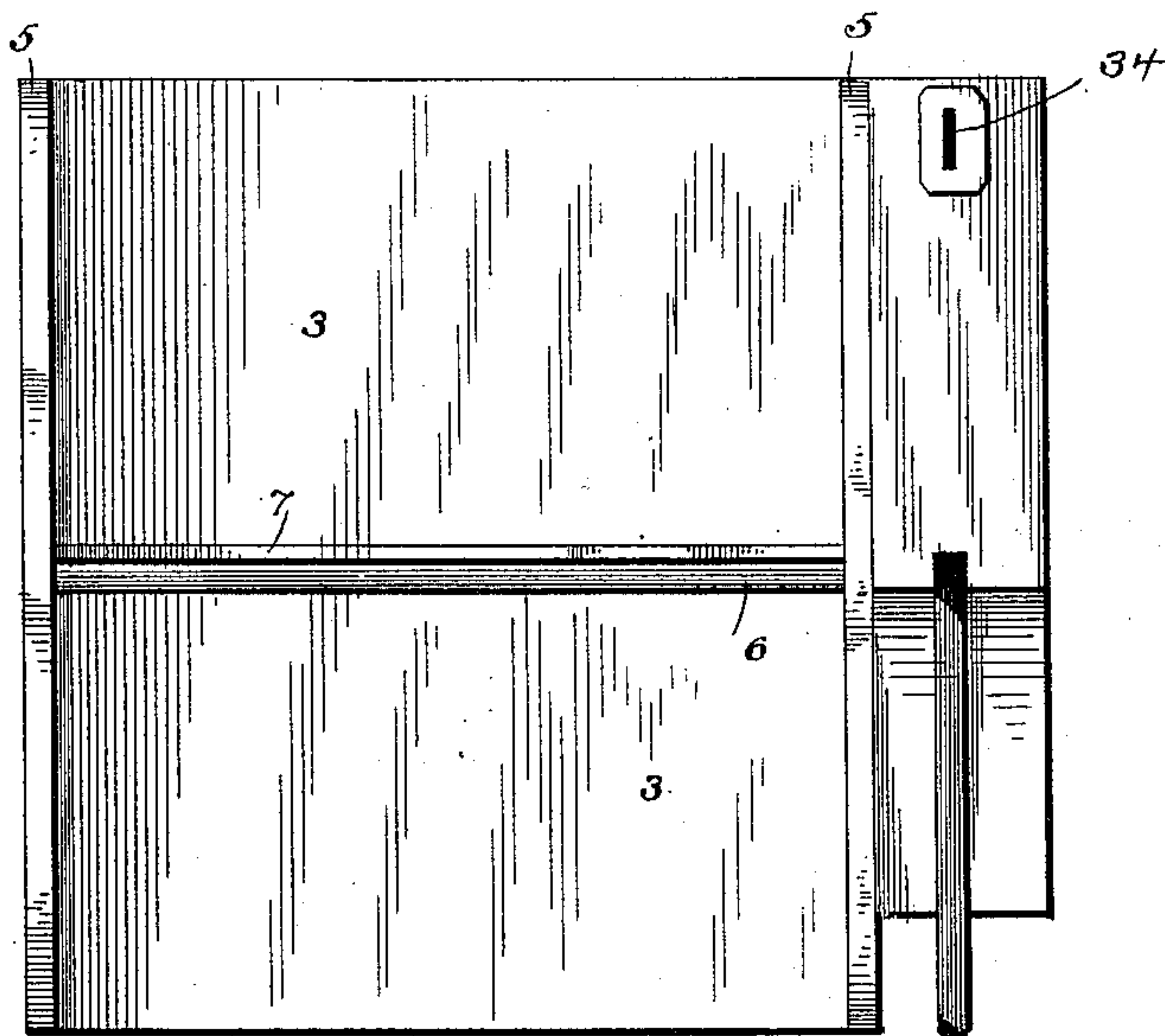
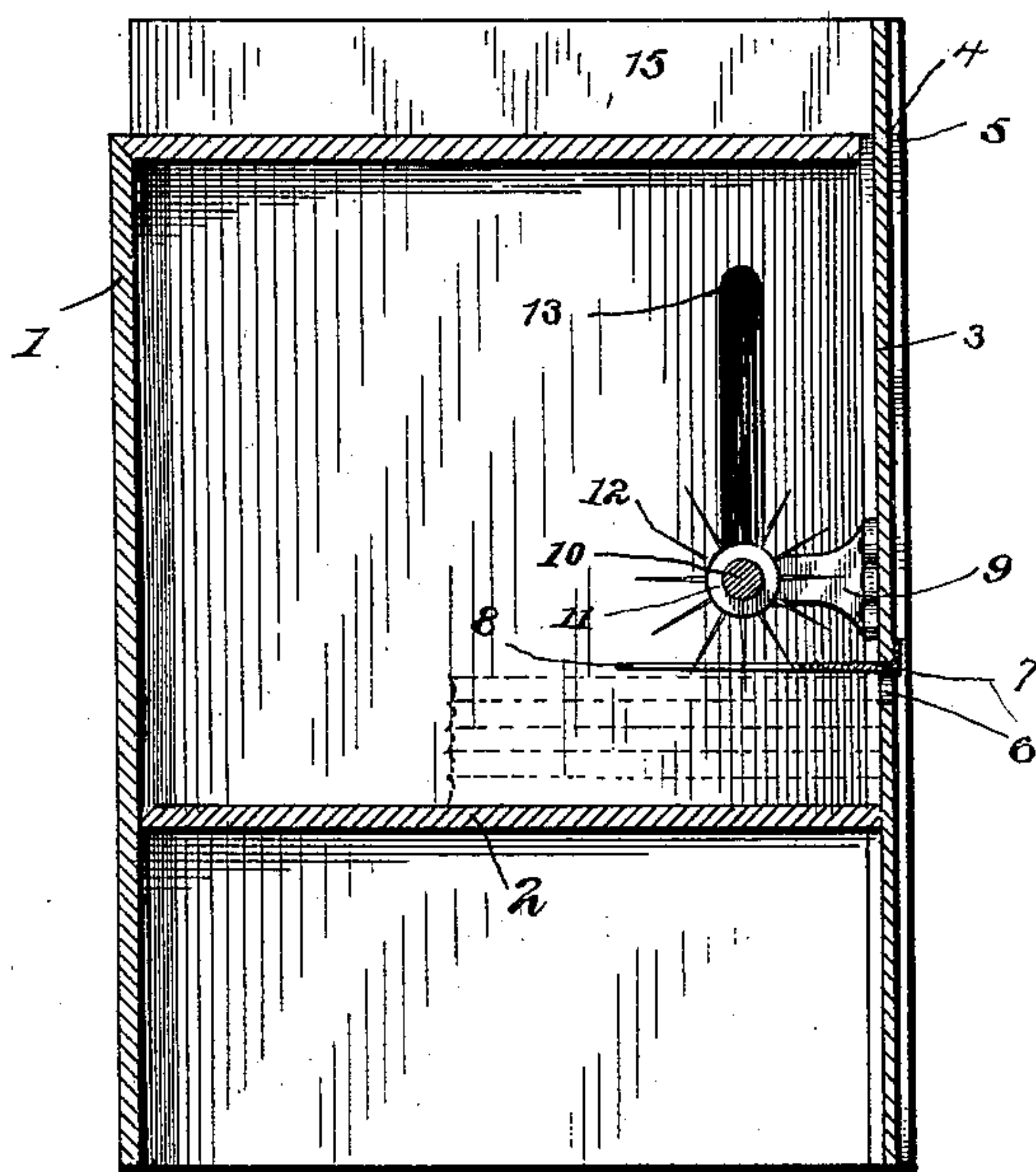


Fig. 2.



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Fig. 3.

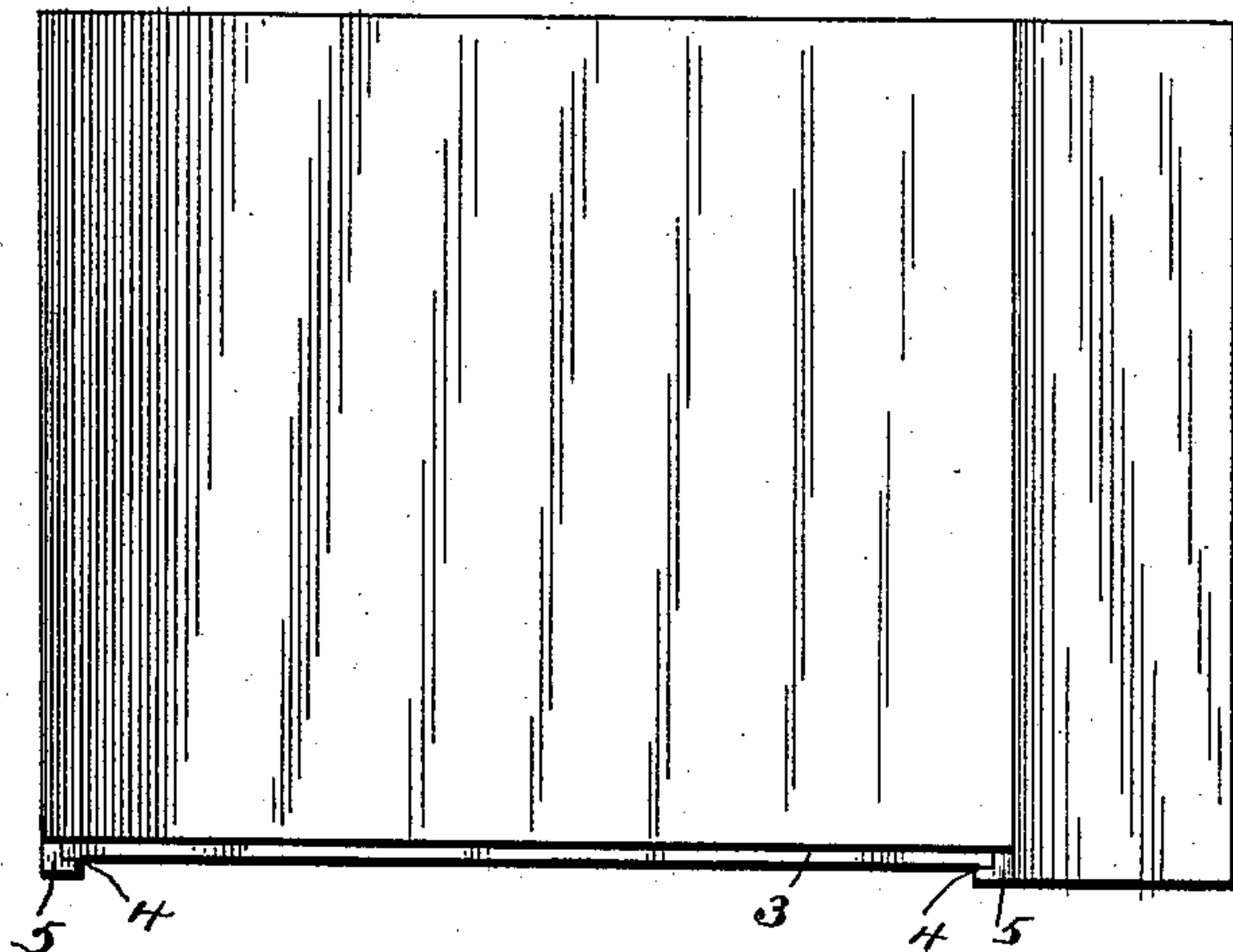
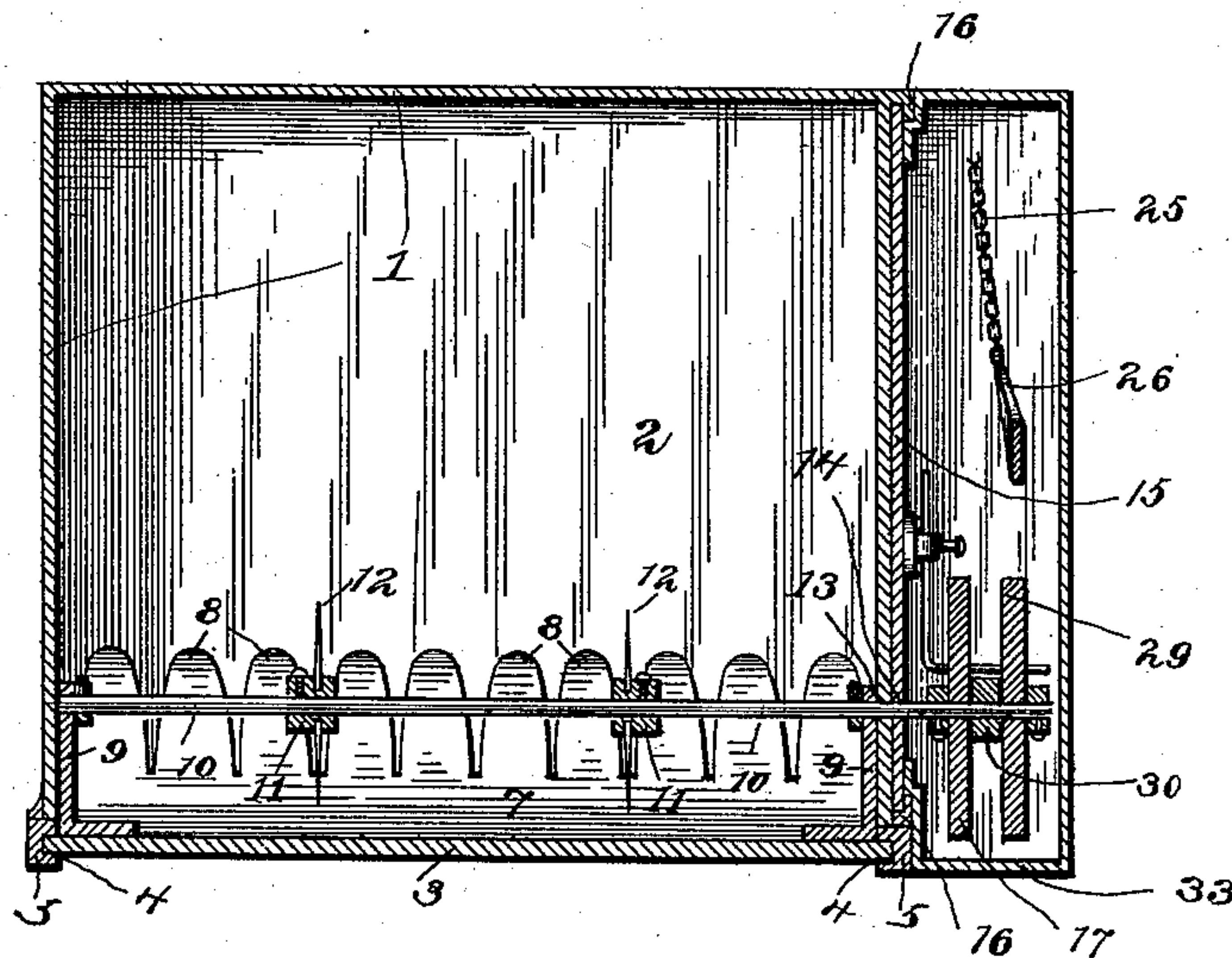


Fig. 4.



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Fig. 5.

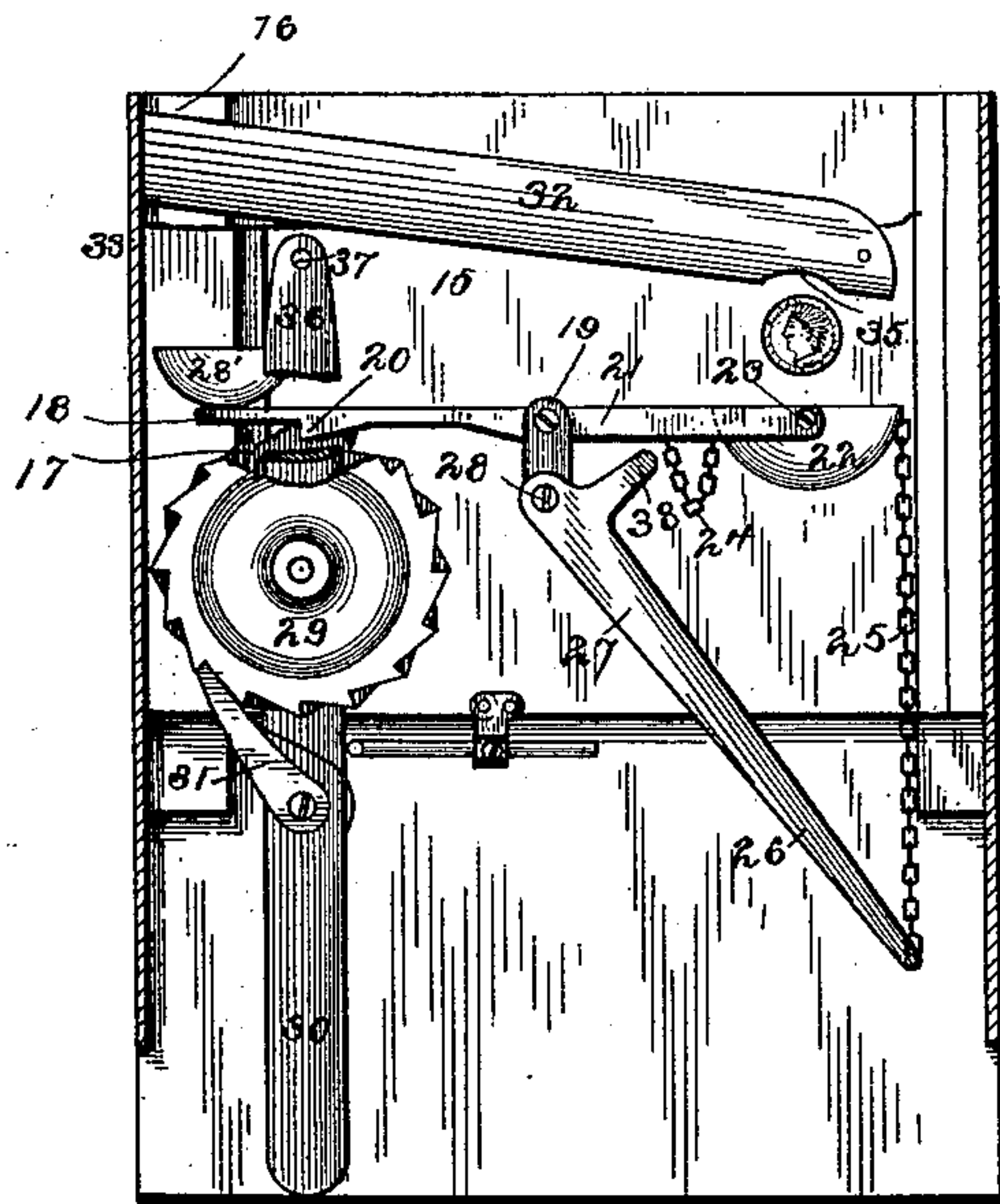
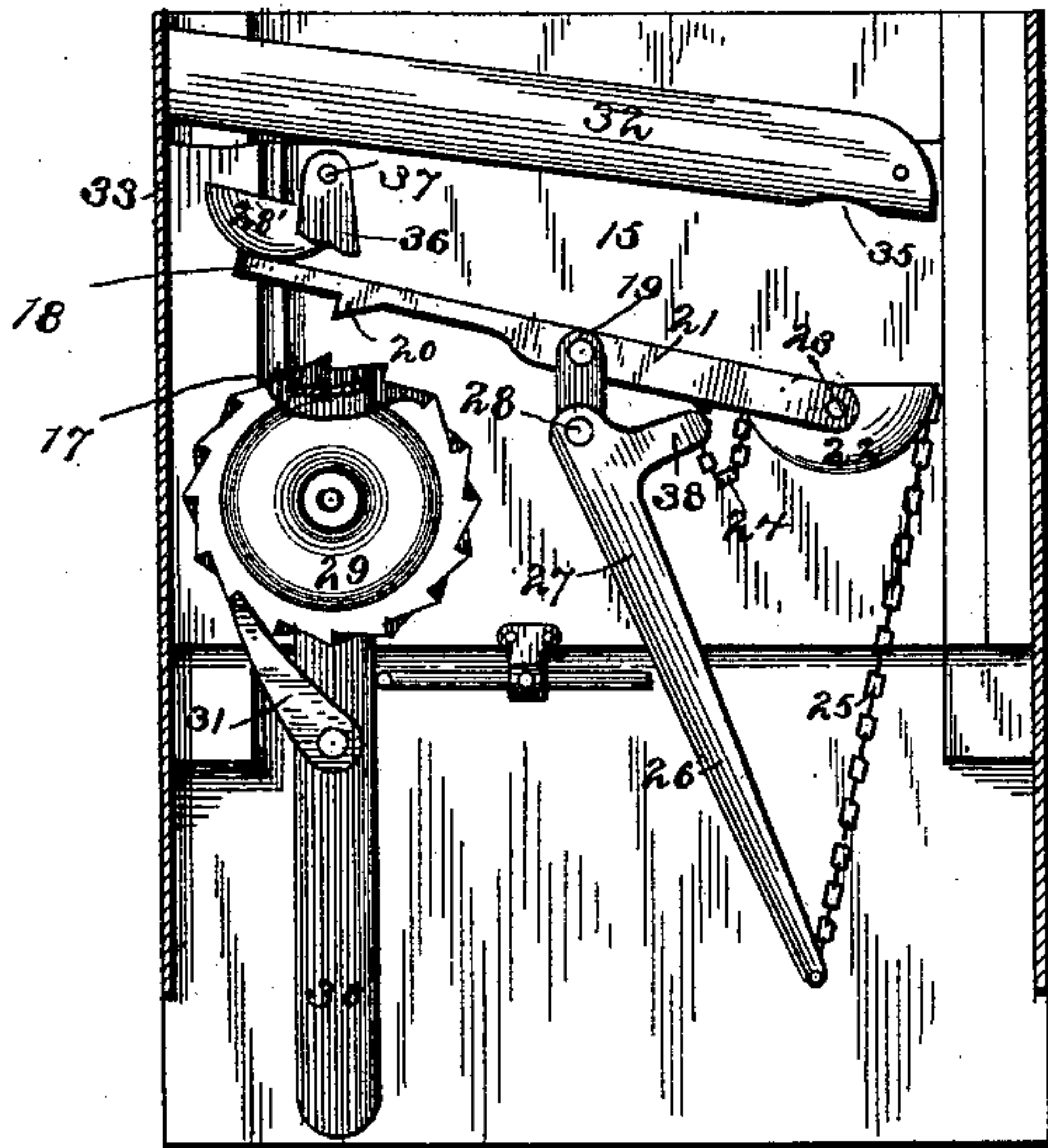


Fig. 6.



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Fig. 7.

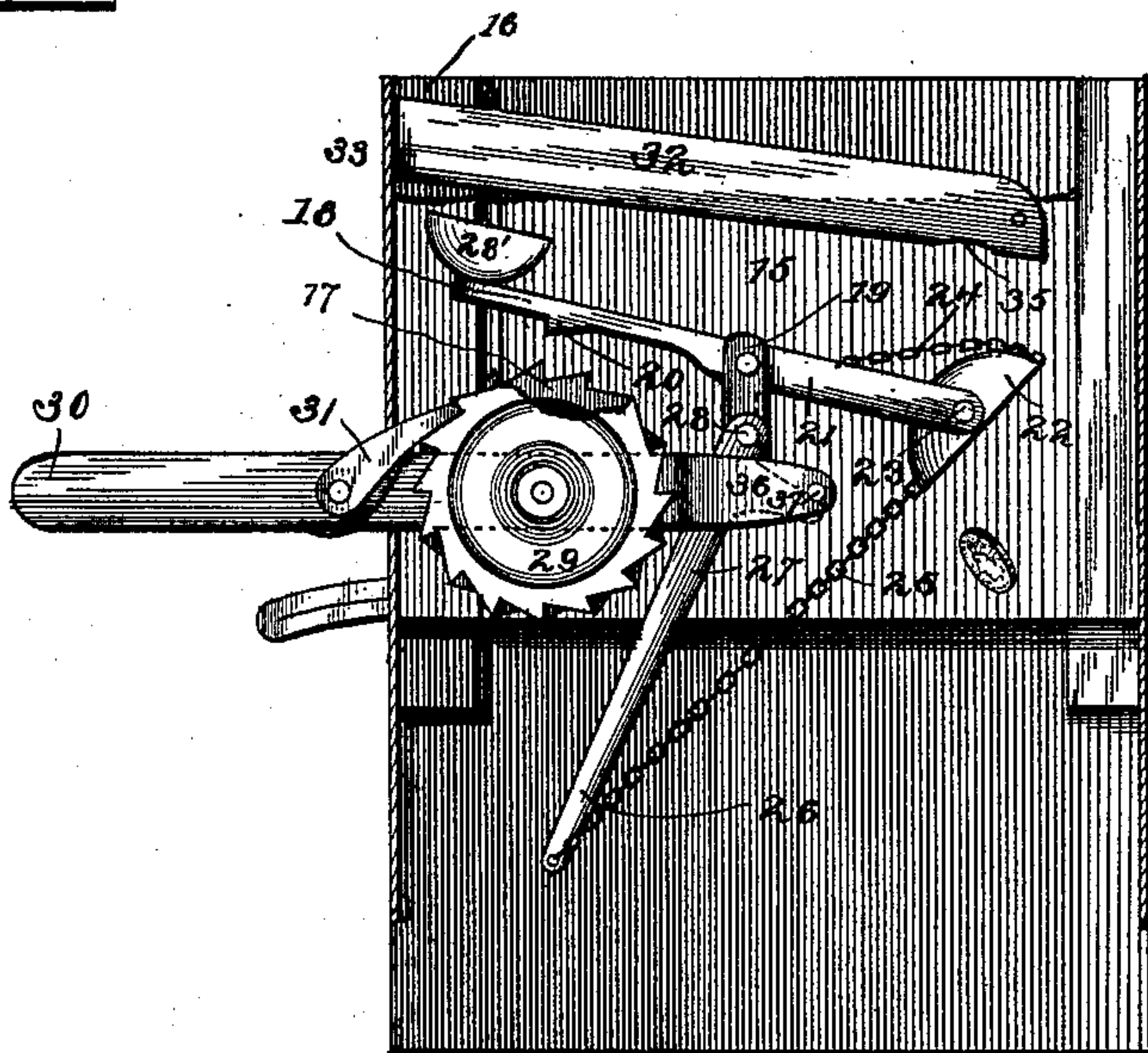
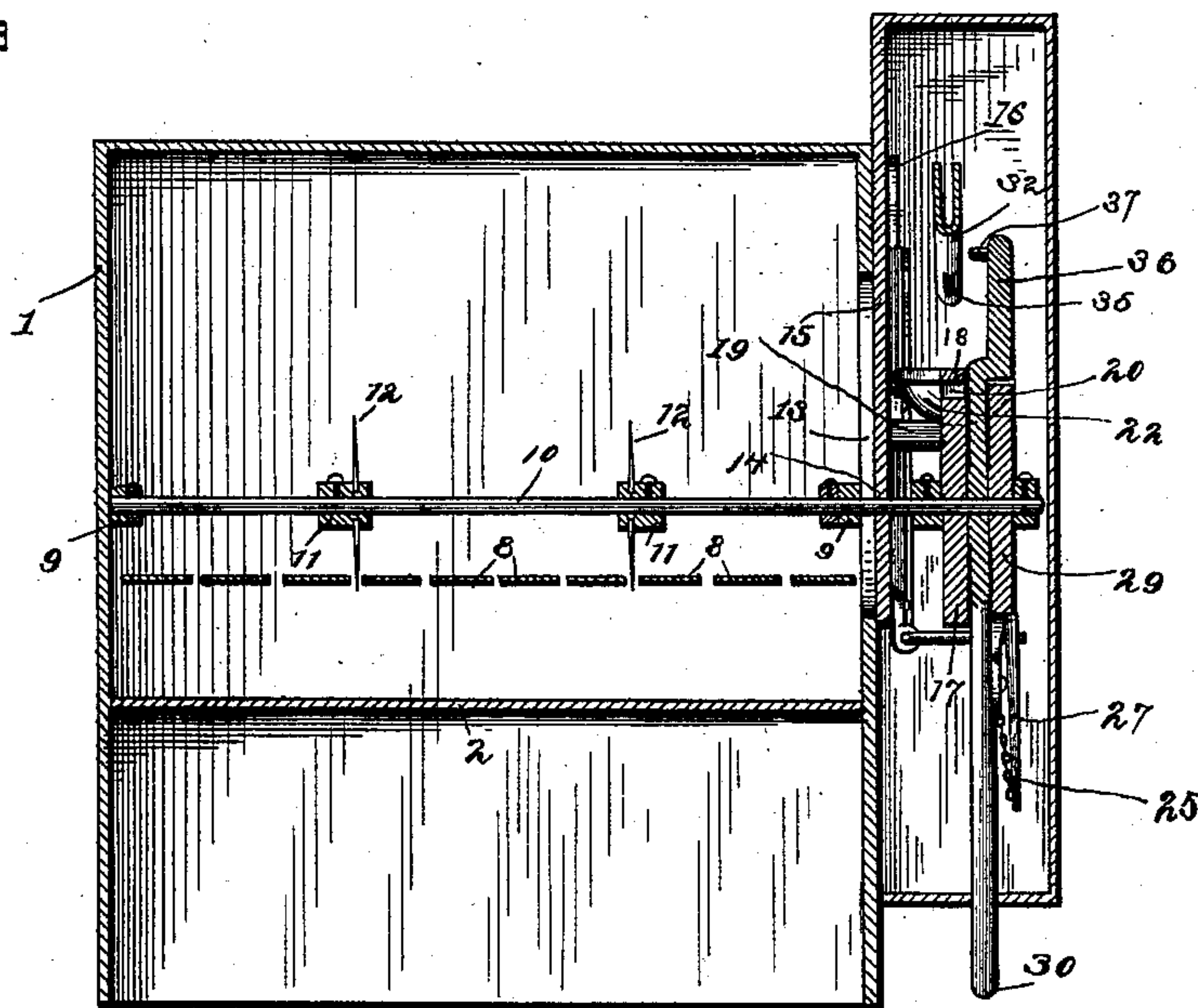


Fig. 8.



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# UNITED STATES PATENT OFFICE.

HERMANN C. VIERKANT, OF TARRYTOWN, NEW YORK.

## COIN-CONTROLLED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 592,071, dated October 19, 1897.

Application filed April 6, 1897. Serial No. 631,004. (No model.)

*To all whom it may concern:*

Be it known that I, HERMANN C. VIERKANT, a citizen of the United States, residing at Tarrytown, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Coin-Controlled Vending-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in coin-controlled vending-machines, and more particularly to that class employed in vending newspapers, magazines, and periodicals; and the object is to simplify the construction and increase the efficiency of the same.

To these ends the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a front elevation of my improved automatic vending-machine. Fig. 2 is a transverse section of the same. Fig. 3 is a top plan view. Fig. 4 is a horizontal section on the line of the feed-shaft. Fig. 5 is an end elevation with the coin-lever in position to lock the feed-wheel. Fig. 6 shows the coin-lever tripped by the insertion of a coin to release the feed-shaft. Fig. 7 is a similar view showing the position of the hand-lever in the act of discharging a paper, and Fig. 8 is a longitudinal section on the line of the feed-shaft.

1 represents a rectangular case, which may be of any suitable size and shape to conform to the dimensions of the periodical on sale.

2 represents a horizontal shelf fixed in the case, and upon which the articles are placed.

3 represents the movable front, which slides freely in the grooves 4 4 in the vertical front posts 5 5. This front 3 is provided with a horizontal slot 6, extending across it the entire width of the case, and 7 represents a sheet-metal guard projecting inwardly from the top wall of said slot, and its inner edge terminates in a series of guard-fingers 8 8.

9 9 represent horizontal brackets secured

to the inside of the sliding front above the slot, and in these brackets is journaled the horizontal feed-shaft 10. 11 11 represent hubs fixed on said shaft, and they are provided with a series of radiating arms 12, pointed at their outer ends, the lowermost ones of which rest upon the upper side of the top article in the case, the pointed ends engaging the upper sheet or cover of the magazine with sufficient tension to move it forward through the slot when the feed-shaft is rotated in the proper direction. One end of this feed-shaft extends through a vertical slot 13 in the side of the case and through a journal 14 in a sliding plate 15, having a vertical movement in the parallel guides 16 16, so that said plate will rise and fall in unison with the front 3. 17 represents a ratchet-wheel fixed on said shaft outside of the plate 15, and 18 represents the horizontal coin-lever fulcrumed in the bracket 19, fixed to the plate 15, and it is provided with a pawl 20, which projects into the path of the teeth on the ratchet 17. The outer end of the coin-lever 18 is formed with a bifurcated arm 21, in which is suspended the dish-shaped coin-basket 22 on the trunnions 23 23, so that while the basket normally hangs level on its trunnions, it may be tilted to discharge its contents as occasion requires. 24 represents a limit-chain connecting one edge of the basket with the bracket to limit its tilting movement. A second chain 25 is attached to the edge of the opposite side of the basket, and its lower end is connected to the longer arm 26 of a bell-crank lever 27, fulcrumed on a stud 28 on the bracket 19. A small cup-shaped receptacle 28 is fixed on the opposite end of the coin-lever 18, and in the present instance the lever is so adjusted that a penny dropped in the basket 22 will tilt the lever to raise the pawl 20 out of the path of the ratchet-wheel 17; but if the price of the article on sale is two cents, one penny may be placed in the receptacle, where it remains. It is therefore evident that two pennies must be dropped in the basket before the lever will raise the pawl, and it will thus be seen that various combinations can be made without altering the adjustment of the coin-lever. A second ratchet-wheel 29 is fixed on the feed-shaft 10, having its teeth pointing in a reverse direction to those on



the ratchet-wheel 17 first mentioned. A hand-lever 30 is also fulcrumed on said feed-shaft between the two ratchet-wheels, and its longer arm is provided with a spring-actuated pawl 31, arranged to engage the teeth on the ratchet-wheel 29 and operate the feed-shaft when the ratchet-wheel 17 is released by the pawl 20 on the coin-lever 18.

32 represents the coin-chute, fixed to a vertical plate 33, secured at a right angle to the sliding plate 15, its front end communicating with the coin-slot 34 in said plate 33, and the rear end of this chute inclines downward and terminates immediately above the coin-basket, its lower end being formed with a discharge-orifice 35, through which the coin falls into the basket. The shorter arm 36 of the hand-lever is provided with a lateral pin 37, which projects into the path of the shorter arm 38 on the bell-crank lever 27, and when the coin-lever has been tripped by a coin in the basket, the last portion of the movement of the hand-lever causes the pin 37 to strike the arm 38 of the bell-crank lever, and, through the action of the chain 25, tilts the basket to discharge the coin, as shown in Fig. 7. Upon releasing the hand-lever it is restored by gravity to its normal position, and the basket being relieved of its weight allows the coin-lever to fall back so that its pawl 20 will engage the ratchet-wheel 17 and lock the feed-shaft against further manipulation until another coin is inserted in the slot to release it.

Although I have specifically described the construction and relative arrangement of the several elements of my invention, I do not desire to be confined to the same, as such changes or modifications may be made as clearly fall within the scope of my invention without departing from the spirit thereof.

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

1. A coin-controlled vending-machine, comprising the feed-shaft, a series of feed-wheels fixed on said shaft, a ratchet-wheel fixed on said shaft, a coin-lever provided with a locking-pawl adapted to travel to and from said ratchet-wheel, a tilting coin-receptacle mounted on said lever, a second ratchet-wheel fixed on said feed-shaft, and a hand-lever mounted on said feed-shaft and adapted to simultaneously operate said feed-shaft and tilt said coin-receptacle to discharge its contents, substantially as shown and described.

2. A coin-controlled vending-machine, comprising a fixed case, a gravitating feed-shaft adapted to deliver a newspaper or analogous article of merchandise, a ratchet-wheel fixed on said shaft, a coin-lever traveling simultaneously with said feed-shaft and provided with a locking-pawl projecting into the path of said ratchet-wheel, and means substantially as described for operating said coin-lever, substantially as shown and described.

3. A coin-controlled vending-machine, comprising a fixed case, a vertically-sliding front provided with a horizontal delivery-slot, a feed-shaft mounted on said front and traveling with it, a ratchet-wheel fixed on said feed-shaft, a coin-lever provided at one end with a tilting coin-receptacle and at the other with a locking-pawl adapted to be projected into the path of said ratchet-wheel, and means substantially as described for operating said feed-shaft and simultaneously tilting said basket as and for the purpose set forth.

4. In a coin-actuated vending-machine, the case 1 provided with the shelf 2, the vertically-sliding front 3 provided with the horizontal slot 6, the brackets 9 9 fixed to said front, the feed-shaft 10 journaled in said brackets, the hubs 11 fixed on said shaft, and the radiating arms 12 fixed in said hubs, the ratchet-wheel 17 fixed on said feed-shaft, the coin-lever 18 fulcrumed in the bracket 19 fixed to movable plate 15 and provided with the locking-pawl 20 adapted to be projected into the path of the teeth of said ratchet-wheel 17, a coin-receptacle 22 pivoted in the inner end of said lever and a fixed counterbalancing-receptacle 28 at the outer end, the bell-crank lever 27 fulcrumed in the bracket 19 and connected by the chain 25 to the edge of said pivoted receptacle 22, in combination with the ratchet-wheel 29 fixed on said shaft 10 and the hand-lever 30 fulcrumed on said shaft and provided with a spring-actuated pawl 31 engaging the teeth on said ratchet-wheel 29, and having its shorter arm 36 provided with a lateral pin 37 projecting into the path of the arm 38 of the bell-crank lever 27, substantially as shown and described.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

HERMANN C. VIERKANT. [L. S.]

Witnesses:

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W. A. H. ELY.