

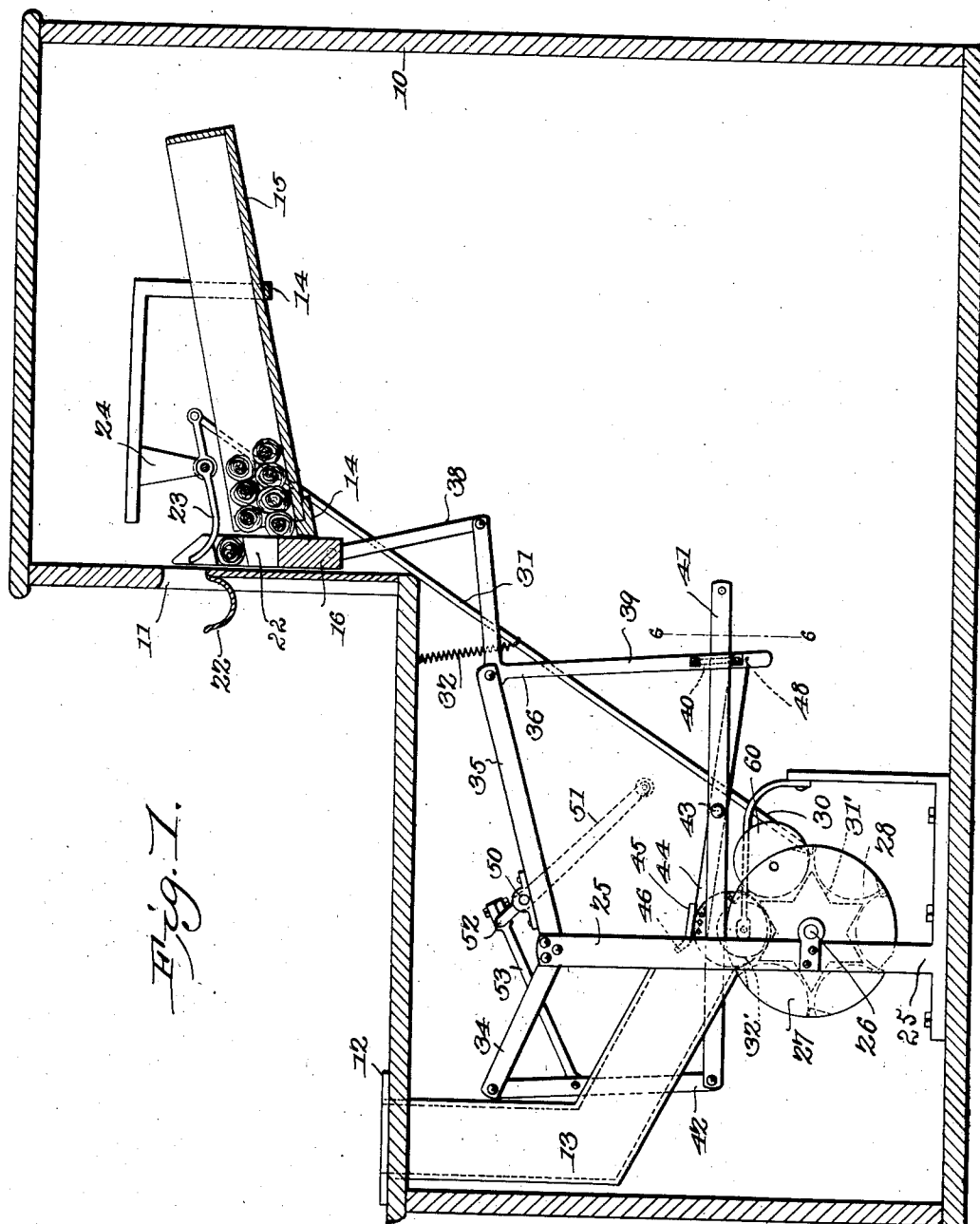
No. 826,556.

PATENTED JULY 24, 1906.

J. B. FENDER.
COIN CONTROLLED VENDING MACHINE.

APPLICATION FILED MAY 9, 1906.

2 SHEETS—SHEET 1.



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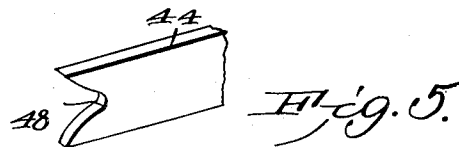
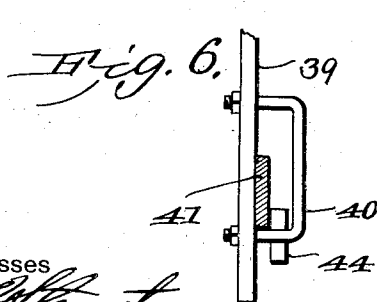
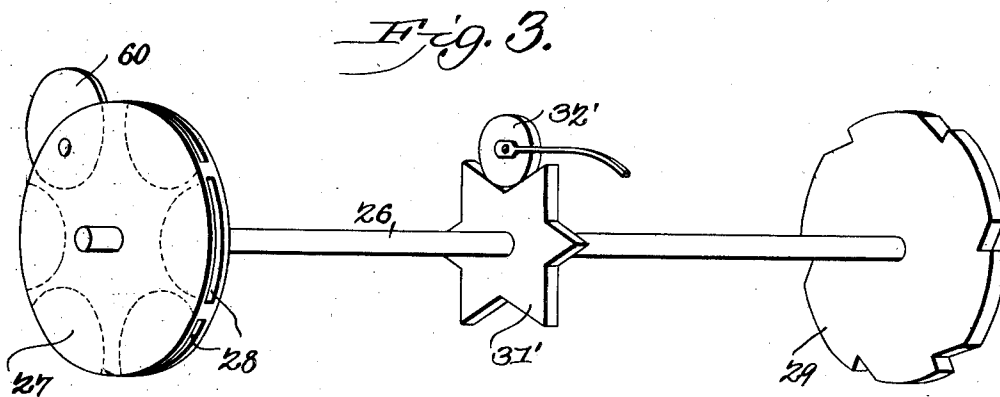
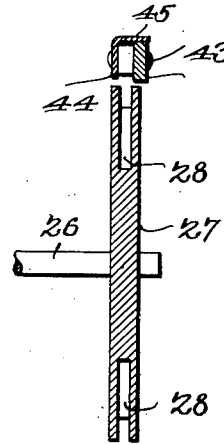
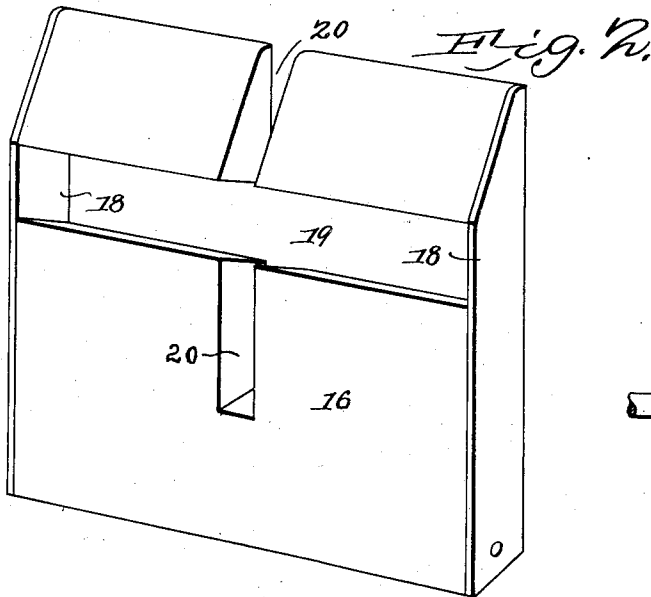
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UNITED STATES PATENT OFFICE.

JOHN BROWN FENDER, OF KAUFMAN, TEXAS.

COIN-CONTROLLED VENDING-MACHINE.

No. 826,556.

Specification of Letters Patent.

Patented July 24, 1906.

Application filed May 9, 1905. Serial No. 260,063.

To all whom it may concern:

Be it known that I, JOHN BROWN FENDER, a citizen of the United States, residing at Kaufman, in the county of Kaufman and State of Texas, have invented a new and useful Coin-Controlled Vending-Machine, of which the following is a specification.

This invention relates to coin or check controlled vending-machines, and has for its principal object to provide a novel means for effecting the delivery of the goods and to positively prevent the accidental discharge of more than a single article from the reservoir or magazine at each operation.

A further object of the invention is to provide mechanism of this character in which after the deposit of a coin or check of proper denomination or character the delivery of the article will be insured so long as one or more articles remain in the magazine, all of the parts being held in operative position to be manipulated by the purchaser until the article is actually delivered.

A still further object of the invention is to provide a device of this character in which the article being discharged serves as a means for transmitting movement to the coin-controlled mechanism, effecting readjustment of the parts and preventing another operation of the machine until another coin has been deposited.

A still further object of the invention is to provide a vending-machine of this class in which after a predetermined number of operations a purchaser will receive two or more articles on the insertion of a single coin or check, the additional article or articles being in the form of a prize that is delivered at regular intervals.

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, herein-after 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 coin or check controlled vending-machine constructed in accordance with the invention. Fig. 2 is a detail perspective view of the delivery-slide de-

tached. Fig. 3 is a detail perspective view of the main shaft of the machine, showing the coin wheel or disk and the ratchet mechanism for turning the same to coin-discharging position. Fig. 4 is a transverse sectional elevation of the coin-receiving wheel or disk. Fig. 5 is a detail view, on an enlarged scale, of one end of the coin-actuated lever. Fig. 6 is a sectional view, on an enlarged scale, on the line 6 6 of Fig. 1.

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

The various working parts of the machine are arranged within a suitable casing 10, formed of any desired material and provided at the front with a delivery-opening 11 for the goods and with a suitable escutcheon 12, having an opening for the reception of a coin or check, which latter is delivered by means of a slide or runway 13 to the coin-controlled mechanism of the machine. This chute may be provided with any of the usual devices for preventing the passage of a spurious coin, such devices being well known in this art.

In the upper portion of the casing is arranged a support or supports 14 for a magazine 15, which may be of any suitable size and shape, and in the present instance is represented in the form of a cigar-box, the lid and one end of which are removed and the cigar-box being supported in an inclined position, so that the cigars may move by gravity toward the front of the casing. Between the open end of the reservoir and the front of the casing is arranged a delivery-slide 16, that is preferably formed of a number of pieces of wood or similar material, held together by side strips 18 of metal. The members of the slide are slightly spaced to form two intersecting slots 19 and 20. The slot 19 serves to receive single articles from the reservoir and moves between the reservoir and the delivery-opening 11, the lower wall of said slot being inclined, so that when the slot is in alinement with the opening the article may be moved outward through such opening by gravity and fall to a trough or shelf 22. The slot is preferably of a size which will permit of the reception of single articles only, or if two or more articles are to be delivered at a single operation the shape of the slot is correspondingly changed. The second slot 20 is arranged in a vertical plane and serves to permit the engagement of the article being

delivered with the curved end of a lever 23, that is fulcrumed on a bracket 24 at the upper portion of the casing.

In the lower portion of the casing is arranged a frame 25, having bearings for the reception of a transversely-disposed shaft 26. At one end of the shaft is a coin-receiving wheel or disk 27, having a plurality of coin or check receiving pockets 28, these pockets being arranged in the periphery of the wheel at a point in alinement with the delivery end of the chute 13, so that coins passing through the chute will fall into the pockets. At the opposite end of the shaft 26 is a ratchet-wheel 29, with which engages a pawl or tooth 30 at the end of a rod 31, that is normally elevated by a helical tension-spring 32. The upper end of the rod is connected to the lever 23, and the arrangement is such that when an article carried by the delivery-slide engages said lever 23 the pawl-rod will be actuated and the ratchet-wheel 29 will be turned to the extent of a single tooth. If there is no article in the slide, the ratchet-wheel will remain stationary. The shaft 26 is further provided with a toothed disk 31', with which may engage a spring-pressed roller 32', said disk being provided with teeth of a number equal to the number of ratchet-teeth or the number of pockets and serving as a means for correcting the movement of the shaft and for stopping the coin-receiving wheel in proper position at the end of each partial rotation. Under some circumstances the movement of the rod will not be complete and the shaft 26 will not be carried the proper distance. This is corrected by the spring-pressed roller 32' and the toothed disk 31'.

The frame 25 is provided with two arms 34 and 35 and to the rear end of the latter is pivoted a bell-crank lever 36, having an approximately horizontal arm that is connected by a link 38 to the lower portion of the slide 16. The approximately vertical arm 39 of the bell-crank lever is provided with a staple or yoke 40 near its lower end, said staple or yoke forming a guide for the rear end of a bar 41. The front end of the bar 41 is hung by a link 42 from the front end of the arm 34 of the frame.

The bar 41 carries a pin 43, on which is pivoted a coin-actuated lever 44. The front end of the lever is provided with a flange 45, that extends over the upper edge of the bar 41 and over the periphery of the coin wheel or disk 27, the forward end of the flange being curved, as at 46, and being in position immediately to the rear of the delivery end of the coin-chute, so that coins passing from the chute will engage the flange and lift the front end of the lever, as will be seen on reference to Fig. 1. The rear end of the lever is provided with a catch 48, which when the forward end of the lever is engaged by a coin will be depressed to a position in alinement

with the lower bar of the yoke 40, and under normal conditions the lever will be parallel with the bar 41.

The arm 35 of the frame is provided with bearings for an operating-shaft 50, that projects to a point outside the casing and is provided with a handled crank 51. At a point inside the casing the shaft is provided with a crank 52, that is connected by a rod 53 to the link 42.

In the operation of the machine a coin or check of the proper size or denomination is inserted in the chute 13 and in traveling through said chute passes under the curved end of the flange 45 and enters one of the pockets of the wheel or disk 27. This raises the forward end of the lever 44, and the rear end of the latter is depressed to a position in alinement with the lower bar of the yoke 40. When the handled crank 51 is then turned by the operator, the movement is transmitted to the link 42 and bar 41, and as said bar carries the lever 44 the latter will also be moved, and its notched end engaging with the yoke 40 will force the approximately vertical arm 39 of the bell-crank lever to the rear. This movement will be transmitted through the bell-crank lever and link 38 to the slide 16, and a coin or other article, previously entered in the slot 19, will be carried up and delivered through the opening 11. As the slide is moved upward the article carried thereby will be engaged by the forward end of the lever 23, and the latter will be forced upward, thus transmitting movement to the lever and pawl-rod 31, and the latter will turn the ratchet-disk 29 and by moving the coin wheel or disk will cause the coin to pass from under the flange 45, the coin falling to the bottom of the casing or to a suitable coin-receptacle. The flange 45 will then fall into engagement with the top of the bar 41, and the lever being then parallel with the bar will slide freely to and fro through the yoke 40 if the handled crank 51 be manipulated; but no further operation of the machine can occur until another coin is inserted. It will be observed, moreover, that until an article has actually passed beyond the lever 23 the coin will remain in position and the lever 44 will remain in engagement with the yoke, so that the operator is free to turn the handled crank as many times as may be necessary to enable the slide to receive an article from the reservoir and deliver the same through the opening 11.

In order to add to the attractiveness of the machine, an auxiliary coin 60 may be secured in one of the pockets, or a cam of a shape similar to a coin may be formed on or secured to the wheel or disk 27. In this case the coin or cam serves as a means for operating the lever 44 once during each complete revolution of the disk, so that the purchaser who places a coin in the pocket immediately preceding

the stationary coin or cam may receive two articles from the machine on the insertion of a single coin.

Having thus described the invention, what is claimed is—

1. In a vending-machine, an article-delivery slide having a pocket for the reception of an article, a revoluble member having coin-receiving pockets, an operating means, mechanism actuated by the insertion of the coin in one of the pockets for connecting the operating means to the slide, and means controlled by an article being delivered for effecting movement of the coin-receiving member.

2. In a vending-machine, a delivery-slide, a wheel or disk having peripheral coin-receiving pockets, an operating member, a normally loose connecting means between the operating member and the slide, a lever arranged in the path of an entering coin and adapted to positively connect such operating member to the slide, and means controlled by an article being delivered for effecting movement of said wheel or disk.

3. In a vending-machine, a delivery-slide, a wheel or disk having peripherally-disposed coin-receiving pockets, a chute for directing coins into the pockets, an operating-shaft, a crank thereon, a pivotally-mounted bell-crank lever having one arm connected to said slide, a yoke or guide carried by the opposite arm of the bell-crank lever, a longitudinally-movable bar operatively connected to the crank and having one end guided in said yoke, and a connecting-lever pivoted to the bar and having one end adapted to engage against the yoke, the opposite end of the lever having a coin-engaging flange.

4. In a vending-machine, a delivery-slide, a bell-crank lever having one arm connected thereto, a guide or yoke carried by the opposite arm of the bell-crank lever, an operating-crank, a bar having one end slidably mounted on the yoke, a link supporting the opposite end of the bar, a rod connecting the link to the crank, a wheel or disk having peripherally-disposed coin-receiving pockets, a chute for directing coins into the pockets, and a lever pivotally mounted on the bar and having one end arranged to engage the yoke, the opposite end of the lever having a flange arranged at the discharge-mouth of the chute and in the path of coins discharged therefrom.

5. The combination in a vending-machine, of a delivery-slide, a bell-crank lever having one arm connected thereto, a guiding-yoke supported by the opposite arm of the lever, an operating-crank, a wheel or disk having coin-receiving pockets, a chute for directing coins into the pockets, a bar having one end guided in the yoke, a link supported at the opposite end of the bar, a rod extending between the link and crank, a lever pivoted on the bar and having at one end a notch for the reception of a portion of the guiding-yoke, and a flange arranged at the opposite end of the bar and disposed in the path of entering coins.

6. In a vending-machine, the combination with a delivery-slide having a pair of intersecting slots, one of which serves as a pocket for the reception of articles to be delivered, a bell-crank lever having one arm connected to the slide, a wheel or disk having peripherally-disposed coin-receiving pockets, a chute for directing coins into the pockets, an operating-crank, means operated by entering coins for effecting positive connection between the crank and the bell-crank lever, a ratchet-wheel having a connection with the wheel or disk, a pawl engaging said ratchet-wheel, and a lever arranged to enter the second slot of the slide and operable by engagement with an article being delivered for imparting movement to said pawl.

7. The combination with an operating means, of a shaft, a wheel or disk mounted thereon and provided with peripherally-disposed coin-receiving pockets, a delivery-slide having a pair of intersecting slots, one of which forms a pocket for the reception of an article to be delivered, means controlled by a coin entering one of the pockets for positively connecting the operating means to the slide, a ratchet-wheel on the shaft, a pawl-rod engaging the ratchet-wheel, and a lever connected to the pawl-rod and having one end extended into the second slot of the slide and in the path of an article being delivered.

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

JOHN BROWN FENDER.

Witnesses:

OSCAR BECKER,
JAS. YOUNG.