

L. M. PARKHURST.
 VENDING MACHINE.
 APPLICATION FILED MAY 27, 1910.

1,017,231.

Patented Feb. 13, 1912.

3 SHEETS—SHEET 1.

Fig. 1.

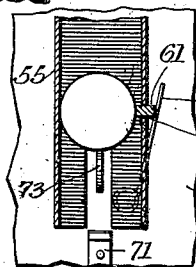
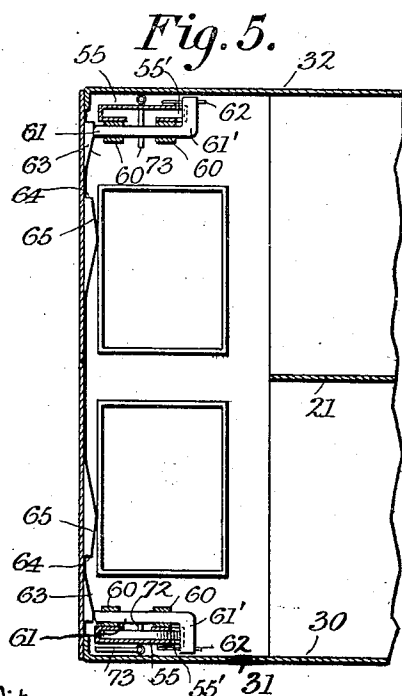
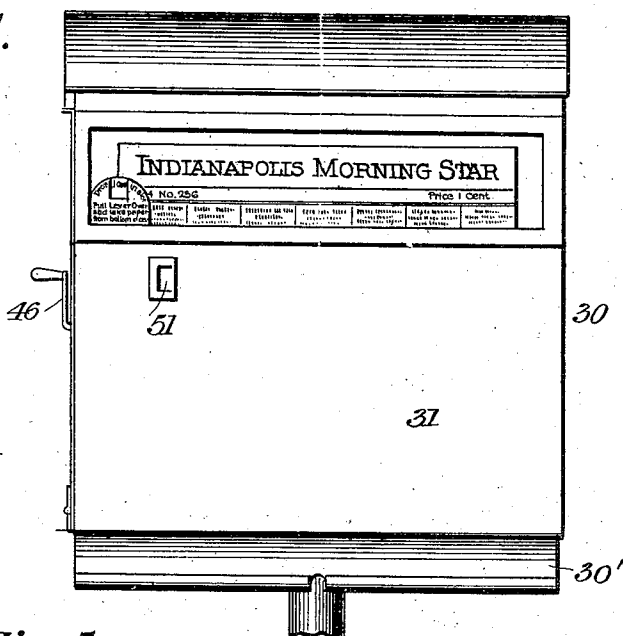


Fig. 6.

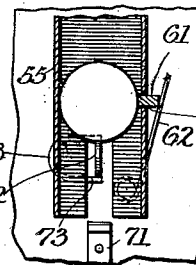


Fig. 7.

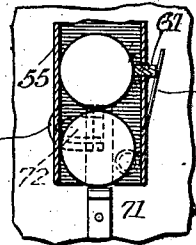


Fig. 8.

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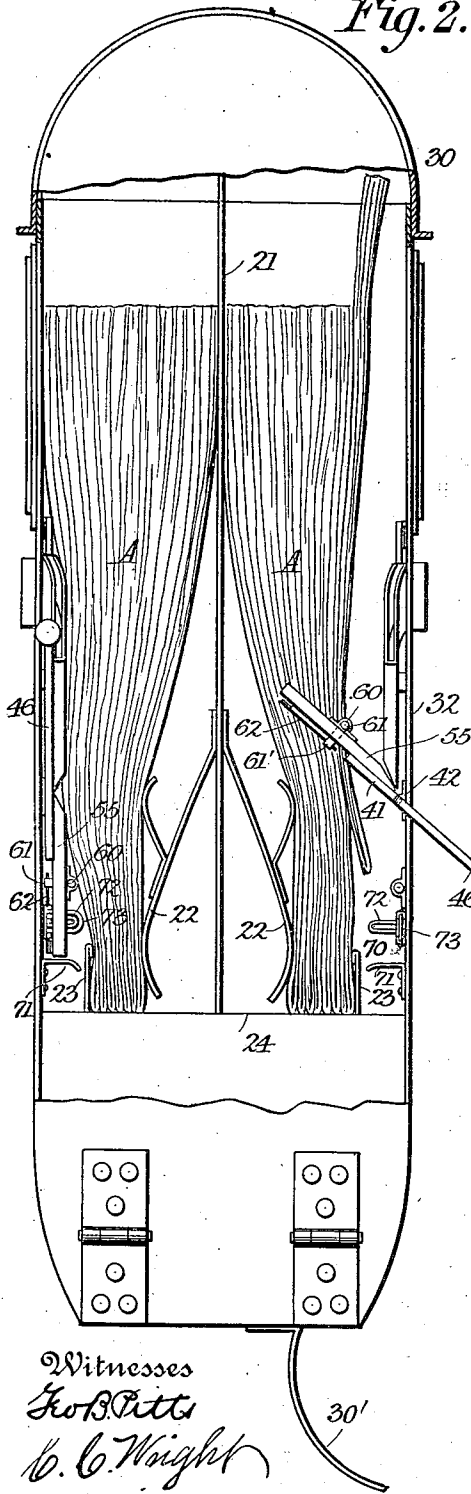
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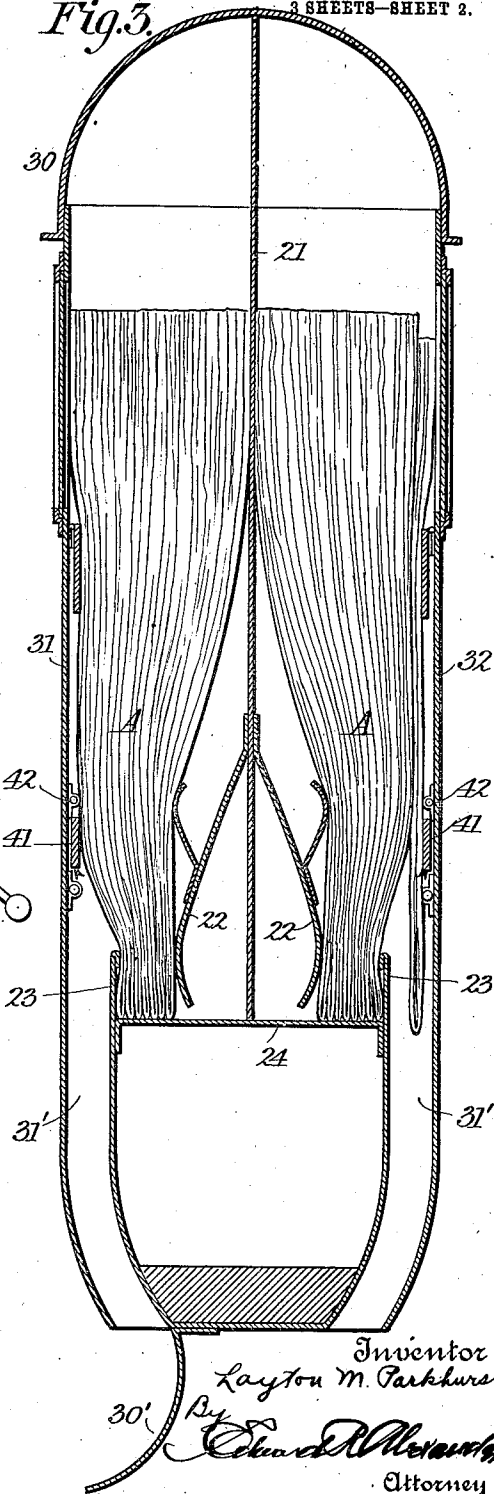
3 SHEETS—SHEET 2.

Fig. 2.

Fig. 3.



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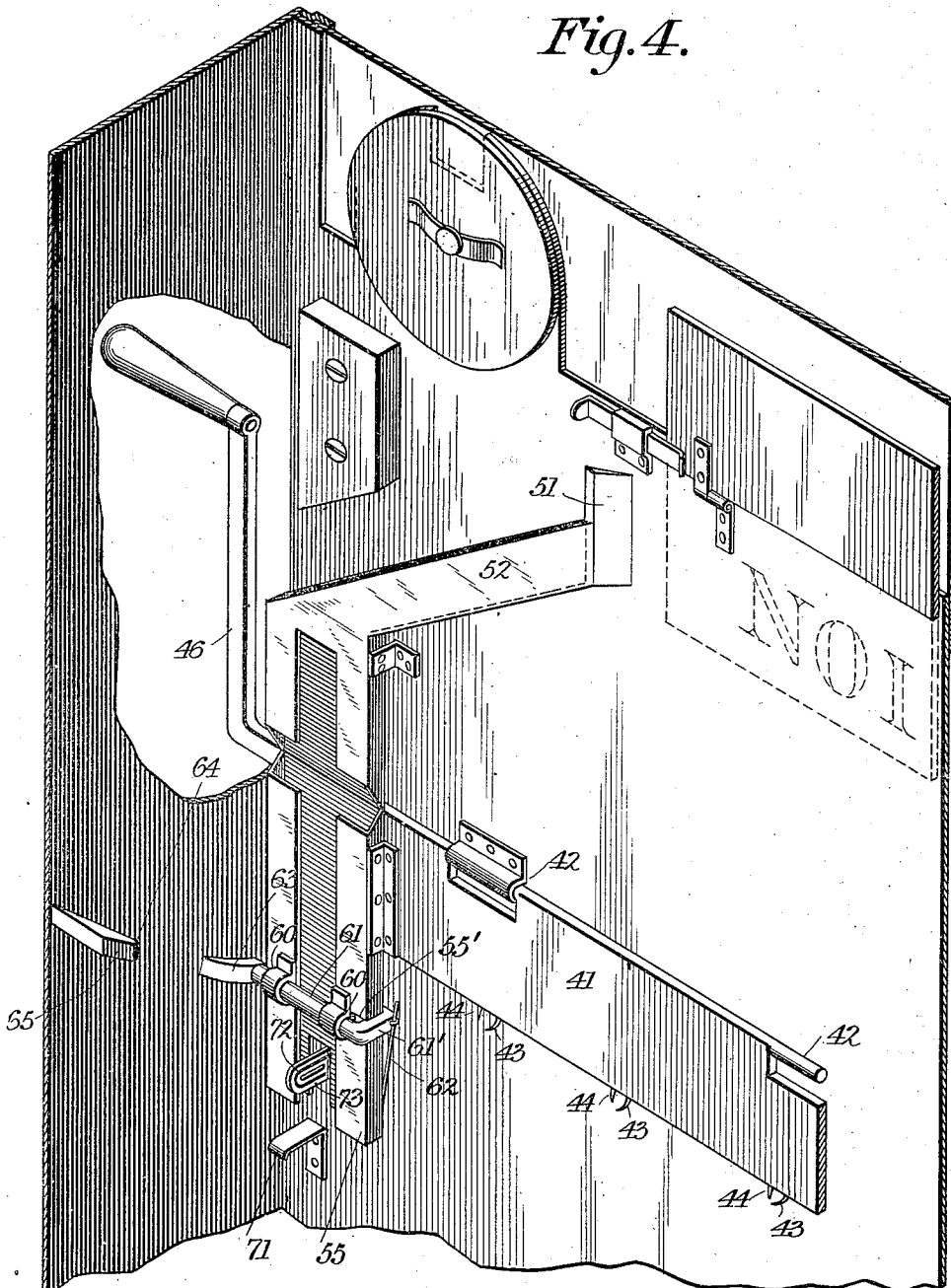
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3 SHEETS—SHEET 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

LAYTON M. PARKHURST, OF INDIANAPOLIS, INDIANA, ASSIGNOR TO THE PARKHURST COMPANY, OF INDIANAPOLIS, INDIANA, A CORPORATION OF NEW JERSEY.

VENDING-MACHINE.

1,017,231.

Specification of Letters Patent.

Patented Feb. 13, 1912.

Original application filed June 19, 1906, Serial No. 322,372. Renewed October 22, 1908, Serial No. 459,091. Divided and this application filed May 27, 1910. Serial No. 563,748.

To all whom it may concern:

Be it known that I, LAYTON M. PARKHURST, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to a coin-controlled apparatus.

As this application is a division of an application filed June 19th, 1906, Ser. No. 322,372, renewed October 22nd, 1908, Ser. No. 459,091, I have shown in the drawing the invention as applied to the vending of newspapers. The invention may, however, be adapted to the vending of articles of any description. As the newspaper vending machine is therefore but one example of the use of my invention, the showing in the drawings is not to be considered in any sense as limiting the invention described in the accompanying claims.

Referring to the drawings Figure 1 is a front view of a vending machine embodying my invention, the standard for the machine being broken away. Fig. 2 is a side elevation of the casing, the near side thereof being broken away and showing one operator in the operation of expelling an article. Fig. 3 is a transverse section of the casing showing the position of an article just ready to be delivered. Fig. 4 is a fragmentary perspective view of the interior of the casing. Fig. 5 is a fragmental horizontal section through a portion of the casing. Figs. 6, 7 and 8 are detail views.

In the drawings 30 indicates a suitable casing comprising a front plate 31, a rear plate 32, and a bottom plate 24 on which the articles, represented as newspapers A, are supported.

21 indicates a partition for dividing the casing into compartments when the casing is made large enough to inclose more than one vending apparatus.

23 indicates a guide plate for directing the papers into the delivery or discharge chute 31'.

30' indicates a receiver which holds the article when discharged from the casing.

22 indicates the pressing device for maintaining the articles in operative position.

41 indicates an operating bar hinged at 42 to some suitable part, preferably the front plate 31, of the casing. 46 indicates a crank, provided with a handle rigidly secured to the operator 41.

Suitable means for engaging and discharging or releasing the articles one by one from the casing, either carried by or operated by the bar 41, are provided. In the machine illustrated in the drawings, such means is shown as comprising prongs or teeth 43, 44, one of which raises the forward-most paper upward, and the other of which carries it down into the chute 31'.

52 indicates a stationary coin chute secured to the inside of the casing and adapted to receive a coin inserted through the slot 51.

55 indicates a movable coin chute, preferably carried by the operator 41, having its upper end adjoining the lower end of stationary chute 52. The adjoining ends of the two coin chutes are beveled, as shown at 54, 54', so that the operator 41 and chute 55 can swing upwardly.

70 indicates the coin-regulating means, preferably comprising a stationary abutment 71, and two hinged abutments 72, 73, all located in the path of the coin through the chute 55. The abutments 72, 73, are preferably arranged on a common vertical axis.

61 indicates a gripping and releasing bar slidably mounted in suitable guides 60, 60, carried by the chute. One end of the bar 61 is bent at right angles, as shown at 61', and extends across a slot 55' formed in one side of the chute 55.

62 indicates a spring secured at one end to the chute and its opposite end engaging the bar 61 and operating to normally force it toward the far side of the chute 55, or that side opposite to the slot 55'.

63 indicates a cam block with which the free end of the bar 61 engages to hold the said bar out of position and against the action of the spring 62.

64 indicates a block or stop adapted to be engaged by the free end of the bar 61 to prevent movement of the operator 41 when no coin, or a dummy or wrong coin, is inserted in the slot 51.

65 is a releasing cam for the coin, operating to slide the bar 61 back in opposition

to the spring 62 to release the coin held between one side of the chute and the bar 61'.

In Figs. 4 and 6, the parts of the coin-controlled mechanism are shown in normal position, and the coin-regulating means adjusted for the use of a cent. If now a coin be inserted through the slot 51, it falls down the chutes 52, 55, until it is arrested by the abutment 73. The crank 46 is now operated, thus moving the operator 41 on its pivot and swinging the lower end of the chute 55 upwardly. During the initial movement of the chute 55, the free end of the bar 61 rides down the coin block 63, permitting the bar 61' to grip the cent between it and the other side of the chute 55. The cent is held in this position while the operator 41 engages one of the articles A, in the operation of delivering it.

Beyond the lock 64, the free end of the bar 61 rides up the cam 65 which slides the bar 61 against the spring 62. This operation of the bar 61 releases the cent which drops by gravity into a suitable receptacle.

When the article to be vended sells for five cents, the abutment 73 is moved out of position, as shown in Fig. 7, leaving the abutment 72 in the path of the coin. When the apparatus vends articles for two cents, both abutments 72 and 73 are moved out of position, as shown in Fig. 8, so that the first cent falling down the chutes, engages the abutment 71 and the second or succeeding cent engages with and rests on the top of the first cent in position to be gripped between the bar 61' and the far side of the chute 55. It will be understood that the series of abutments 71, 72, 73, are arranged in such position that the coin when arrested in the chute 55 opposite the gripping bar 61', will have its center substantially in the same horizontal plane as the said bar. Thus if a coin smaller in diameter than a cent—a ten cent piece—be inserted through the slot 51, its center, when arrested by one of the abutments will be below the horizontal plane of the bar 61', and when the operator 41 is then moved upwardly, the gripping device 61' will fail to grip the coin. Under these conditions, the coin will fall into the coin receptacle, while the bar 61 will engage the lock 64 and prevent the movement of the operator 41.

To those skilled in the art of making devices of the class described, many alterations in construction and widely differing embodiments and applications of my invention will suggest themselves, without departing from the spirit and scope thereof.

My disclosures and the description herein are purely illustrative, and are not intended to be in any sense limiting.

What I claim is—

1. In a coin-controlled apparatus, the combination with supporting means, of an

operator, a movable coin chute, coin-arresting means carried by the supporting means and arranged in the path of a coin through the chute, and coin-gripping means carried by the movable chute.

2. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, a coin-abutment carried by the supporting means, and means operated by the movement of the operator to grip a coin.

3. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, a coin abutment carried by the supporting means, and means operated by the movement of the operator to alternately grip and release a coin.

4. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, a coin abutment carried by the supporting means, means operated by the movement of the operator to grip a coin, and means for releasing the coin.

5. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, a coin abutment carried by the supporting means, means operated by the movement of the operator to grip a coin, means for releasing the coin, and a lock for the operator arranged intermediate the grip-operating and the releasing means.

6. In a coin-controlled apparatus, the combination of supporting means, an operator hinged to the supporting means, a coin chute movable with the operator, a coin abutment carried by the supporting means and arranged in the path of a coin through the said chute, and means operated by the movement of the operator to automatically grip a coin in the said chute and to release the coin.

7. In a coin-controlled apparatus, the combination of supporting means, an operator movably mounted on the supporting means, a coin chute movable with the operator, a lock for the operator, a coin abutment carried by the supporting means and arranged in the path of a coin through the said chute, and means operated by the movement of the operator to automatically grip a coin in the said chute and to release the coin after the operator has passed the said lock.

8. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, coin-regulating means comprising a stationary abutment and a movable abutment arranged in the path of a coin through the said chute, and means for gripping the coin.

9. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, an abutment for a coin, arranged in the path of the coin

through the chute, and means for forcing the coin against one side of the chute for gripping it in the chute to permit the operation of the operator.

5 10. In a coin-controlled apparatus, the combination of supporting means, an operator, a movable coin chute, an abutment for a coin, arranged in the path of the coin through the chute, means for forcing the
10 coin against one side of the chute for gripping it in the chute to permit the operation of the operator, and means for automatically releasing the coin.

15 11. The combination in a vending machine, of an operating bar for delivering articles therefrom, a coin chute composed of parts, one part of which is within the body of the compartment and the other part of which is attached to the delivery bar, a
20 gripping bar carried by said last named part, a catch or lock at an adjacent portion of the machine with which said gripping bar will engage except when the proper coin is introduced, and means carried by the grip-
25 ping bar whereby the proper coin when introduced will hold said gripping bar disengaged from said catch until the coin is released.

30 12. The combination, in a vending machine, of an operator bar for delivering articles therefrom, a coin chute composed of parts, one part of which is within the body of the compartment and the other part of which is attached to the delivery bar, a grip-
35 ping bar carried by said last named part, a catch on an adjacent portion of the machine with which said gripping bar will engage except when the proper coin is introduced, means whereby the proper coin when
40 introduced will hold said gripping bar disengaged from said catch, and adjustable stops or abutments secured to the wall of the machine and extending beneath the coin chute when in its at-rest position.

45 13. The combination, in a vending machine, of an operating bar for delivering articles therefrom, a coin chute, one part of which is mounted upon said bar and moves therewith, a gripping bar carried by said
50 last named bar and having a member which intersects the coin chute, a spring whereby said gripping bar is urged toward an adjacent wall of the machine, an inclined projection or cam on said adjacent wall where-
55 by the said gripping bar is held backward against the spring pressure when in its at-rest position and a catch or lock also on said adjacent wall in the path of the end of said gripping bar, whereby the movement of said
60 gripping bar and attached parts is stopped except when the proper coin is engaged thereby, but which permits the further movement of said parts and also operates to release said coin when such proper coin
65 has been introduced into the machine.

14. The combination, in a newspaper vending machine, of a guide plate behind which the papers are placed for delivery, means for urging said papers toward said plate, a rocking bar adapted to withdraw
70 the papers successively from behind said plate, and a coin-controlled mechanism for rocking said bar embodying a coin chute formed in parts, one part of which is carried by and moves with the bar.

75 15. The combination, in a newspaper vending machine, of a guide plate behind which the papers are placed for delivery, means for urging said papers toward said plate, a rocking bar adapted to withdraw
80 the papers successively from behind said plate, a coin-controlled mechanism for rocking said bar embodying a coin chute formed in parts, one part of which is carried by and moves with the bar, a gripping bar
85 mounted transversely of the member of the coin chute carried by the rocking bar, a spring for urging said gripping bar in the desired direction, a projection on an adjacent surface for holding said gripping bar
90 back when the bar is in its at-rest position, and a catch also secured to an adjacent portion of the machine and arranged in the path of movement of the gripping bar.

95 16. The combination of a casing, a movable operating member mounted therein, a coin chute comprising two sections, one of which is mounted on the casing and the other carried by said member, coin gripping mechanism carried by said movable section,
100 and means carried by the casing cooperating with said gripping mechanism permitting it to first grip the coin and to then release it during operation of the operating member.

105 17. The combination of a casing, a movable operating member mounted therein, a coin chute comprising two sections, one of which is mounted on the casing and the other carried by said member, coin gripping mechanism carried by said movable section,
110 normally held out of gripping position, and arranged to grip a coin of a predetermined size on diametrically opposite sides, means permitting the said mechanism to operate upon the insertion of a perfect coin when
115 the operating member is moved, and means for controlling the movement of the said member comprising a stop and a cam, the said stop operating to lock the member against complete movement when an im-
120 perfect coin has been inserted in the chute and the cam operating to release the coin which has been gripped by said gripping mechanism.

125 18. The combination of a casing, a movable operating member mounted therein, a coin chute comprising two sections, one of which is mounted on the casing and the other carried by said member, a stop fixed to said casing, a spring operated device car-
130

ried by said movable chute section normally projecting into the path of said stop and arranged to grip a coin inserted in the chute, and means for positioning the coin and permitting the gripping thereof by said device, the said stop operating to prevent complete movement of the operating member when a coin is not gripped by said device.

19. The combination of a casing, a movable operating member mounted therein, a coin chute comprising two sections, one of which is mounted on the casing and the other carried by said member, a stop fixed to said casing, a spring operated device carried by said movable chute section normally

projecting into the path of said stop and arranged to grip a coin inserted in the chute, means for positioning the coin and permitting the gripping thereof by said device, the said stop operating to prevent complete movement of the operating member when a coin is not gripped by said device, and means for releasing the coin after the device passes said stop.

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

LAYTON M. PARKHURST.

Witnesses:

J. M. WALSH,

NELLIE M. CARTER.