



No. 893,493.

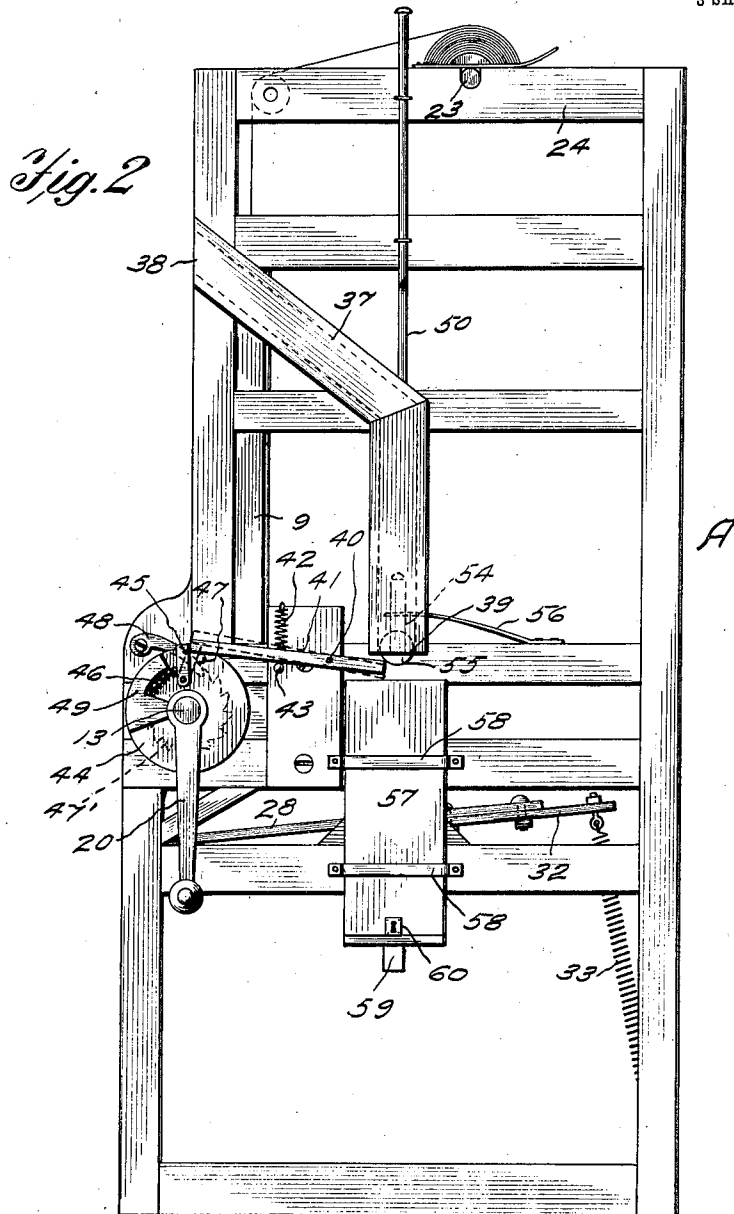
PATENTED JULY 14, 1908.

H. H. & H. C. HARRIS.

COIN CONTROLLED POSTAL CARD DISPENSING MACHINE.

APPLICATION FILED MAY 3, 1907.

3 SHEETS—SHEET 2.



Inventor

*Harvey H. Harris*

*Henry C. Harris*

By

*Victor J. Evans*

Attorney

Witnesses

*R. C. C. C. C.*

*C. Bradway*

No. 893,493.

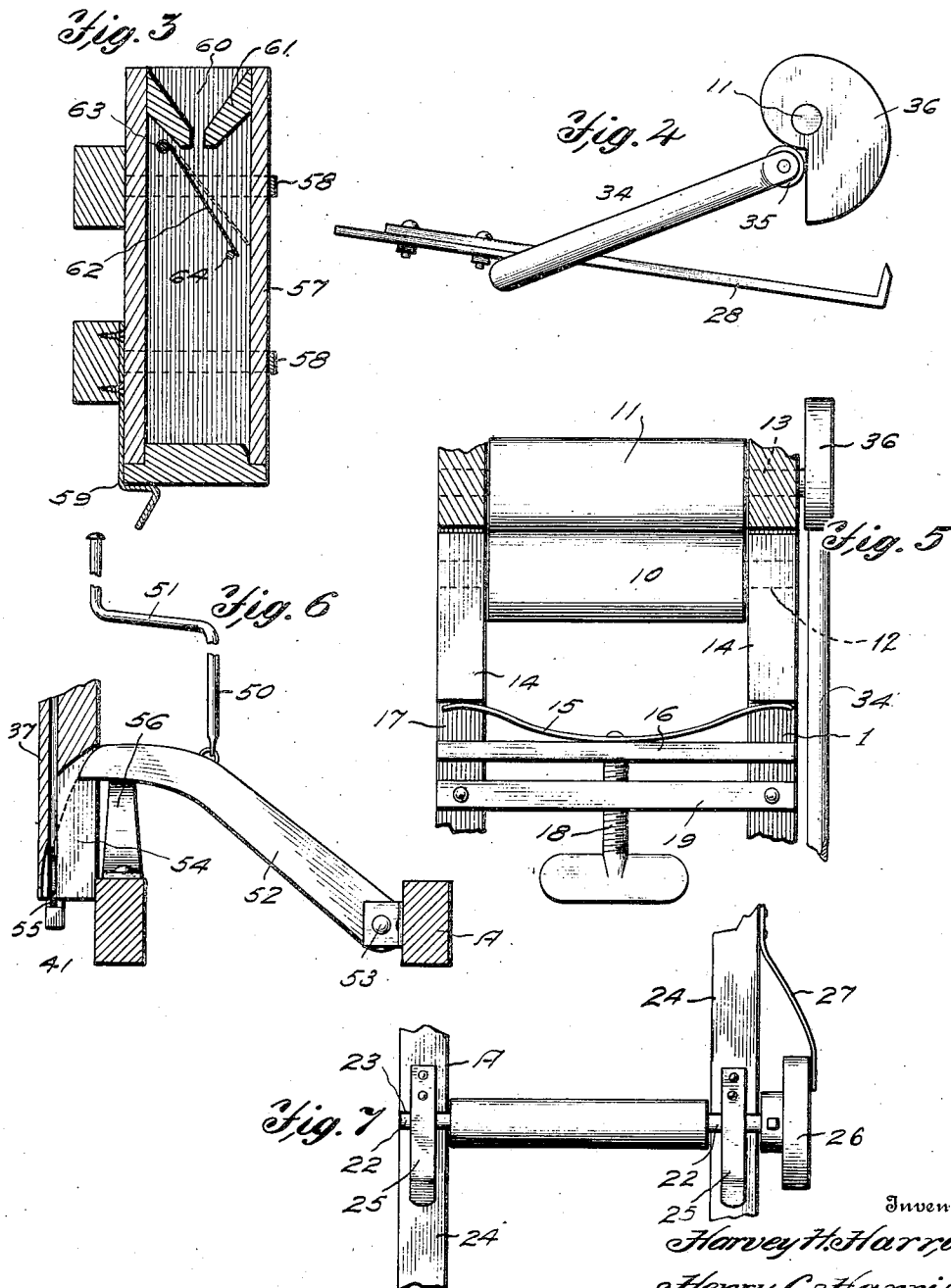
PATENTED JULY 14, 1908.

H. H. & H. C. HARRIS.

COIN CONTROLLED POSTAL CARD DISPENSING MACHINE.

APPLICATION FILED MAY 3, 1907.

3 SHEETS—SHEET 3.



Witnesses

*R. C. Laflin*  
*C. Bradway.*

Inventor

*Harvey H. Harris*  
*Henry C. Harris*

By

*Victor J. Evans*

Attorney

# UNITED STATES PATENT OFFICE.

HARVEY H. HARRIS AND HENRY C. HARRIS, OF COWGILL, MISSOURI.

## COIN-CONTROLLED POSTAL-CARD-DISPENSING MACHINE.

No. 893,493.

Specification of Letters Patent.

Patented July 14, 1908.

Application filed May 3, 1907. Serial No. 371,618.

*To all whom it may concern:*

Be it known that we, HARVEY H. HARRIS and HENRY C. HARRIS, citizens of the United States, residing at Cowgill, in the county of Caldwell and State of Missouri, have invented new and useful Improvements in Coin-Controlled Postal-Card-Dispensing Machines, of which the following is a specification.

This invention relates to a coin-controlled postal card dispensing machine of that type in which the cards are cut off a ribbon that is adapted to be fed through a cutting device whereby a card can be severed from the ribbon every time a coin is dropped into the machine and the operating crank turned.

The invention has for one of its objects to improve and simplify the construction and operation of devices of this character so as to be comparatively easy and inexpensive to manufacture, readily charged and manipulated, and thoroughly reliable and efficient in use.

A further object of the invention is the provision of a souvenir postal card dispensing machine provided with a feeding device with controlling means whereby the postal card ribbon can be fed forwardly a length equal to one card for every coin that is dropped into the machine.

A still further object is the employment of an automatic cutting device for severing the postal cards from the ribbon simultaneously with the stopping of the ribbon feeding device.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawings, which illustrate one of the embodiments of the invention, Figure 1 is a vertical section of the machine. Fig. 2 is a side view thereof with the casing removed. Fig. 3 is a central vertical section of the safety coin receptacle. Fig. 4 is a detail view of the cutter or knife and cam device for actuating the same. Fig. 5 is a detail view of the feed rolls. Fig. 6 is a detail sectional view showing the manually actuated device for discharging the coin from the chute to actuate the detent of the operating crank locking means. Fig. 7

is a fragmentary plan view showing the ribbon roll and supporting means therefor.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates the metal or other framework of the machine inclosed in a suitable casing B provided with a hinged back 1, as shown in Fig. 1, the framework and casing being of any approved construction. The front 2 of the casing is provided with a horizontal slot 3 forming a mouth through which the postal cards are discharged, there being a ledge or rest 4 extending outwardly from the front to hold the cards after they have been severed from the ribbon. The front has an opening 5 that is closed by a pane of glass 6 or other transparent medium through which a plurality of post cards are exposed, while feeding from the spool to the cutting device.

At the top of the framework A is a spool 6 carrying the ribbon 7 of postal cards. The ribbon 7 passes forwardly from the spool to a guide roll 8 and thence vertically through grooved members or guides 9 that receive the longitudinal edges of the ribbon and hold the latter in a vertical position behind the window or opening 5. At the bottom of the guides 9 are horizontal rolls 10 and 11 for feeding the ribbon forwardly, the rolls being preferably of rubber and mounted on shafts 12 and 13. As shown in Figs. 1 and 5, the shaft 12 is journaled in slidable bearing blocks 14 that are pressed by a bow-spring 15 in a direction to yieldingly maintain the roll 10 in coöperative relation with the roll 11. The middle of the spring 15 is secured to an adjustable cross-piece 16 having its ends movably disposed between the horizontal members 17 of the frame A that serve as a guide-way for the slidable bearing blocks and cross-piece 16. The tension of the spring 15 may be varied by an adjusting screw 18 threaded in a cross-piece 19 and bearing against the rear side of the cross-piece 16. The rolls 10 and 11 constitute a feeding device, and the shaft 13 of the roll 11 is provided with an operating crank 20, the said shaft being extended through the wall of the casing for receiving the operating crank. Intermediate the feed rolls 10 and 11 and slot 3 is a horizontal deflector or guide 21 that is inclined downwardly and forwardly from under

the roll 10 so as to direct the free end of the ribbon outwardly through the slot 3 as the ribbon 7 is advanced by the turning of the crank. The spool or roll 6 has its journals 22, as shown in Figs. 2 and 7, mounted in notches 23 in the top cross-pieces 24 of the framework A, the said notches forming bearings for removably supporting the spool. The spool is retained in position by leaf springs 25 arranged on the member 24 to extend across the journals and to remove the spool it is merely necessary to flex the springs upwardly for permitting the journals to be disengaged from the bearing notches. The ribbons of postal cards are supplied on their own spools and when the spool in the machine becomes empty, it is taken out and a full one substituted. To prevent the ribbon from unwinding too freely, the dampening device is employed. This comprises a disk or pulley 26 that is removably attached to one of the journals 22 that is extended for this purpose and a leaf spring 27 attached to the framework A at one end and frictionally engaging at its other end the disk 26, so as to retard the free rotation of the latter. Obviously, this disk is taken off each time an empty spool is removed and placed on the full spool that is substituted.

Since the postal cards are attached together in ribbon form, it is necessary to employ a simple device for severing the postal cards as the ribbon is fed forwardly, and for this purpose a knife 28 is provided that has a sharp cutting edge 29 that coöperates with a stationary handle or cutting member 30 disposed between the bottom edge of the deflector 21 and slot 3 at a point above the ribbon. The knife 28 swings on a horizontal shaft 31 journaled on the framework A at a point below the level of the feed rolls, the blade being bolted or otherwise suitably secured to a plate 32 rigidly secured to the shaft 31 and adjustably connected with a helical extension spring 33 suitably anchored at one end on the framework of the machine. At one end, the shaft 31 is provided with a crank arm 34, as clearly shown in Figs. 4 and 5 that has mounted on its free extremities an anti-friction roller 35 arranged in the path of a snail-cam 36 keyed or otherwise suitably secured to the shaft 13 of the feed roll 11 so that simultaneously with the feeding of the ribbon by the turning of the operating crank 20, the knife 28 will be moved downwardly to the dotted line position shown in Fig. 1 to thereby energize the spring 33 and cause the knife to move forcibly upward for severing the lowermost postal card. The feed rolls 10 and 11 are so proportioned that one turn of the crank will advance the ribbon 7 a distance corresponding to the length of the postal card, and the knife operating mechanism is so designed that the knife will come into play at the very time that one card has

been fed forwardly, or simultaneously with the stopping of the operating crank. In Fig. 4, the cam 36 is shown in a position assumed just after the knife has severed a card, the roller 35 having passed off the high point of the cam to the lowest.

In order to prevent more than one card to be dispensed through the agency of one coin, a coin-controlled locking device is used for locking the operating crank 20 after one card has been dispensed. A coin chute 37 is provided that has its upper open end 38 arranged at the front of the machine, while its lower end 39 terminates at a point slightly above the level of the feed rolls. On the framework A is fulcrumed at 40, a detent 41 disposed at one end under the discharge end of the chute 37 so as to be in the path of the coin dropped through the latter. The detent is pressed by a compression spring 42 that normally holds the detent against a stop 43, as shown in Fig. 2. On the shaft 13 is a disk or wheel 44 that carries a pivoted locking member 45. While the detent is in normal position, its forward end engages the member 45, thereby preventing the shaft 13 being turned by the operating crank 20. The locking member 45 is acted on by a coiled spring 46 in such a manner as to snap under the detent when the forward end thereof is raised through the medium of the coin in the chute so that the crank can be freely turned. Arranged on the disk is a stop pin 47 for limiting the movement of the locking member, as shown by dotted lines in Fig. 2. To limit the rotation of the shaft 13 to a clockwise direction, a ratchet wheel 47 is provided on the shaft 13 with which coöperates a gravity acting pawl 48. On the disk 44 is a peripheral extension 49 that passes under the detent and holds the latter raised during the first quarter revolution of the shaft 13. After the crank has been turned through one revolution, the locking member 45 will engage the detent and thereby prevent the shaft from being again turned until the detent has been actuated by a coin.

When a coin is dropped into the chute 37, it will come to rest in the bottom thereof by the detent and positive means are employed to operate through the coin to actuate the detent. This means comprises a push-rod 50 extending vertically and guided on the framework with its upper end projecting out of the casing so as to be manually actuated. The lower end of the rod, which latter is offset at 51, to extend along one side of the chute 37, is hingedly connected with a lever 52 fulcrumed at 53 on the framework and arranged with its free end extending into a slot 54 of the chute so as to engage over the coin 55 and expel it from the chute. The expelling lever 52 is acted on by a leaf spring 56 secured to the framework and arranged to hold the lever raised and out of the path of

the coin as it passes down the chute. Below and in line with the chute, is a coin receptacle 57 that is secured to the framework by strap loops 58 and a spring latch 59. By flexing the latch 59 to the left, Fig. 3, the safety coin receptacle can be slipped out of the loops 58 in a downward direction. The bottom of the receptacle is hingedly connected to the body and is normally held in closed position by a lock 60, the key of which is held by some authorized person. The top of the coin receptacle 57 has an inwardly converging mouth 60 formed by downwardly inclined members 61 secured to the side walls. Below the mouth is a hinged keeper 62 pivoted at its upper edge at 63 and normally resting on a stop 64. The coins enter the receptacle 57 through the mouth 60 and drop on the inclined keeper 62 and slide thereon and fall through the space between the lower edge of the keeper and adjacent side wall of the receptacle. This keeper prevents the coins from being worked out of the mouth should anyone attempt to extract the money. That is to say, should the receptacle 57 be removed and inverted in an attempt to empty the same, the keeper will fall to the dotted line position, as shown in Fig. 3, and thereby positively prevent the money from being worked out.

In practice, the machine is placed in stores and other public places where anyone can operate the machine to receive a souvenir postal card or the like by depositing an appropriate coin. The coin is dropped into the chute 37 and the push-rod 50 thereafter depressed so as to cause the coin to actuate the detent 41. The locking member 45 thereupon springs under the front end of the detent so as to permit the operating crank to be turned. It will thus be seen that three operations are necessary, namely, the dropping of the coin, the pressing of the rod 50, and the turning of the crank 20, these being carried out in successive order. By one turn of the crank, the ribbon 7 is fed forwardly and a postal card slipped off the lower end thereof, after which the crank will be automatically locked. The severed card will be received by the rest 4 and held thereon until removed by the person using the machine. It will thus be seen that the cards can be dispensed one at a time until the spool 6 is emptied. When this occurs, no more cards can be exposed through the window or opening 5 and in their stead will be viewed a curtain 65 having the word "empty" thereon so as to inform the public that the machine is no longer charged so that it would be useless to drop in any more coins.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the

invention appertains, and while we have described the principle of operation of the invention, together with the apparatus which we now consider to be the best embodiment thereof, we desire to have it understood that the apparatus shown is merely illustrative and that such changes may be made when desired as are within the scope of the claims.

Having thus described the invention, what we claim is:—

1. In a machine of the class described, the combination of a strip-carrying roll, feed rolls between which the strip passes, a crank for operating the feed rolls, a ratchet and pawl device for preventing the crank from being turned in reverse direction, a cutter, an arm connected with the cutter for oscillating the same, a cam rotating with the crank and engaging the arm for moving the cutter in one direction, a spring arranged and adapted to move the cutter during its cutting stroke and to hold the arm in engagement with the cam, a locking device arranged and adapted to automatically set for preventing the crank from turning, and manually actuated means arranged to release the locking device to permit the crank to be turned.

2. In a machine of the class described, the combination of a strip-carrying roll, a pair of feed rolls, a rest disposed in cooperative relation to the rolls, means for guiding the strip to be cut from the rolls to the rest, a shaft, a cutter fixed on the shaft to oscillate about the latter as a center, an arm on one end of the shaft, an operating shaft, means between the operating shaft and arm for actuating the latter, means for preventing the operating shaft from turning in reverse direction, means cooperating with the cam for actuating the cutter, a locking device including a detent for arresting rotation of the operating shaft after the cutter has completed its cutting stroke, and manually actuated means for releasing the detent.

3. In a machine of the class described, the combination of a strip-carrying roll, a pair of feed rolls, grooved guides arranged to receive the edges of the strip in passing from the strip-carrying rolls to the feed rolls, a driving means connected with one of the feed rolls, and a locking device controlling said driving means, said device comprising a rotatable element, a spring-pressed member on the element, a spring-actuated lever arranged to engage the member for arresting the said driving means, and means for actuating the lever for releasing the locking device.

4. In a machine of the class described, the combination of a pair of feed rolls, a crank connected with one of the feed rolls, a ratchet wheel, a pawl cooperating therewith for controlling the direction of rotation with the crank, a pivoted member rotating with the crank, an element mounted to engage the

member for preventing turning of the crank, manual means for disengaging the element from the member, and means for actuating the member to a position to hold the element  
5 disengaged to permit the crank to be turned.

5. In a machine of the class described, the combination of a pair of feed rolls, shafts on which the rolls are mounted, a crank connected with one of the shafts, a ratchet and  
10 pawl mechanism for preventing the crank from turning in a reverse direction, an element rotating with the crank, a pivoted member thereon, a spring pressing on the member, a lever arranged to engage the  
15 member, manually actuated means for releasing the lever from the member, a cutter, and means for actuating the cutter by the crank, said lever and member being so arranged as to automatically lock the crank  
20 against turning when the cutter has completed its cutting stroke.

6. In a machine of the class described, the combination of ribbon feeding rolls, a crank shaft for one of the rolls, a rotatable element  
25 secured to the shaft, a locking member there-

on, a detent arranged in the path of the locking member, means for releasing the detent from the member, and a spring for throwing the locking member under the detent to permit the crank shaft to be rotated. 30

7. In a machine of the class described, the combination of a feeding device including a shaft mounted for rotation, a member rotatable therewith, a detent for engaging the member to lock the shaft, and means for preventing the shaft from rotating in reverse direction, a swinging cutter, a crank arm connected with the cutter, a snail-cam on the shaft for actuating the crank-arm to move the cutter in one direction, and a quick acting device for moving the cutter in the  
35 opposite direction. 40

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

HARVEY H. HARRIS.  
HENRY C. HARRIS.

Witnesses:

J. W. RICE,  
J. F. McNEW.