O. J. HOTALING.

NEWSPAPER VENDING MACHINE.

APPLICATION FILED SEPT. 18, 1919.

1,345,855.

Patented July 6, 1920.

3 SHEETS—SHEET 1.

Fig. 1.

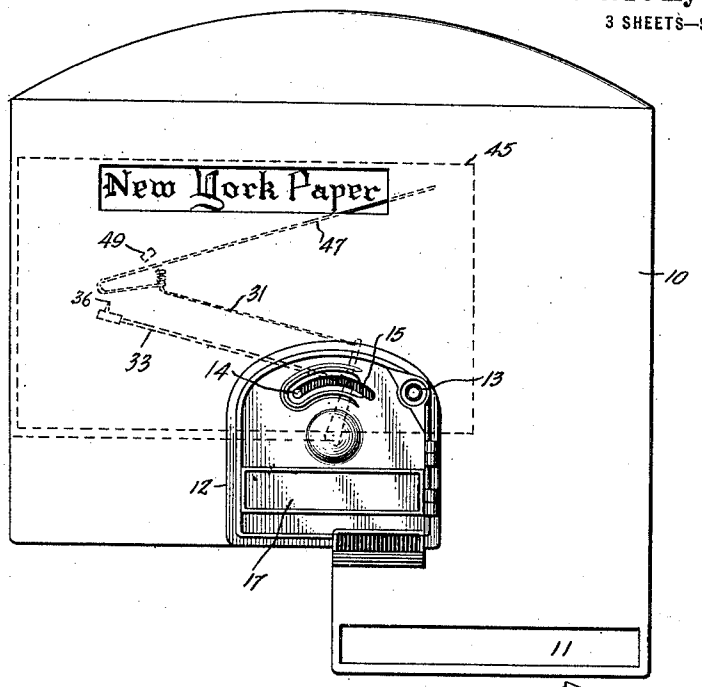
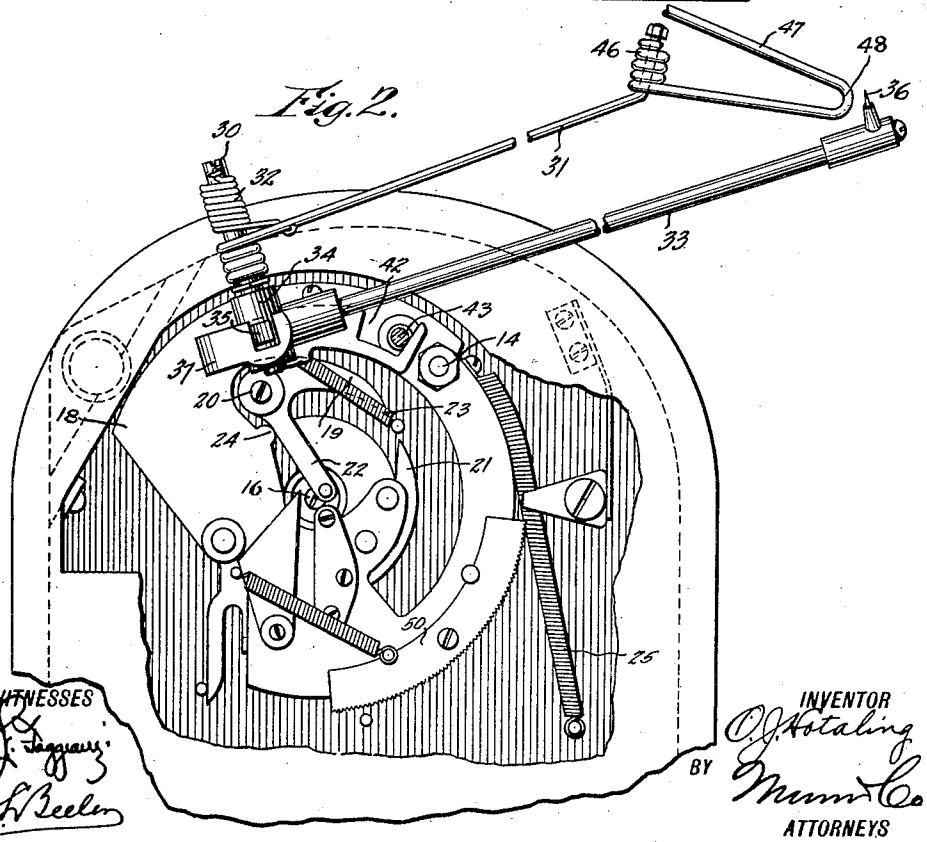


Fig. 2.



WITNESSES

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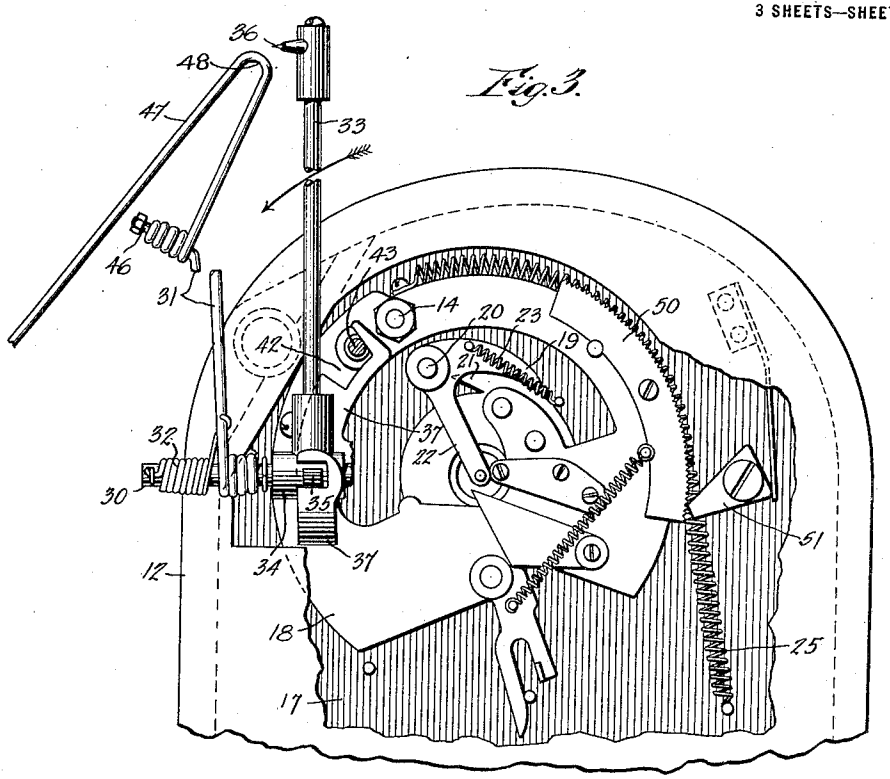


Fig. 3.

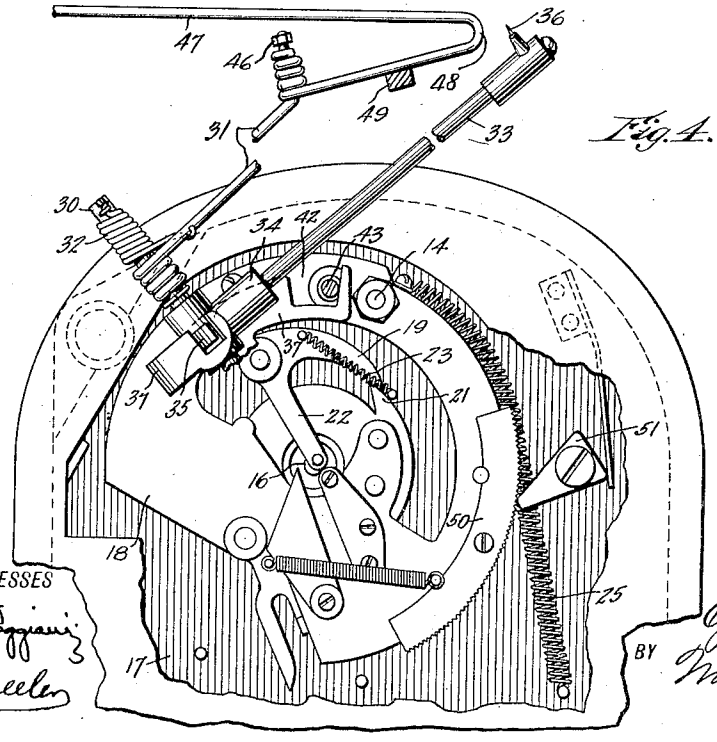


Fig. 4.

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3 SHEETS—SHEET 3.

Fig. 5.

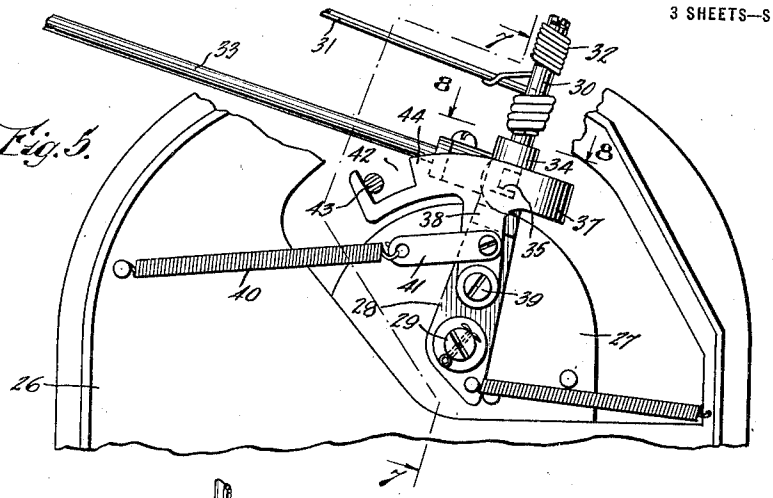


Fig. 6.

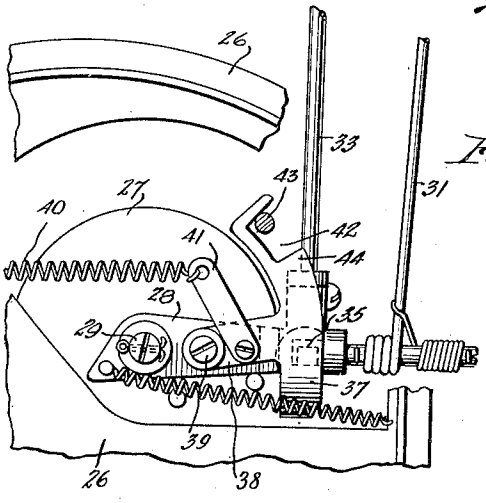


Fig. 7.

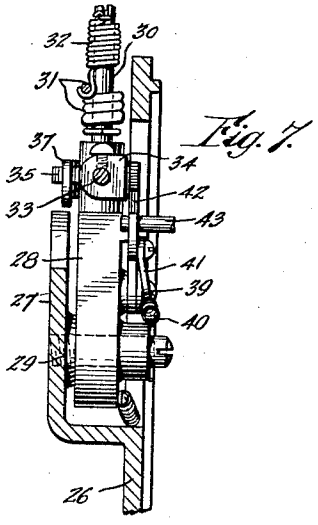


Fig. 8.

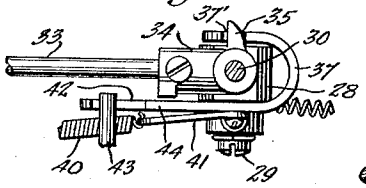
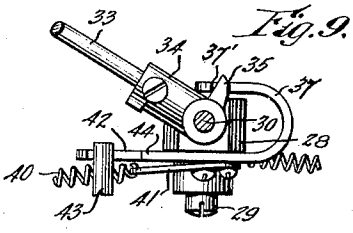


Fig. 9.



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UNITED STATES PATENT OFFICE.

OMAR J. HOTALING, OF EAST ORANGE, NEW JERSEY.

NEWSPAPER-VENDING MACHINE.

1,345,855. Specification of Letters Patent. Patented July 6, 1920.

Application filed September 18, 1919. Serial No. 324,415.

To all whom it may concern:

Be it known that I, OMAR J. HOTALING, a citizen of the United States, and a resident of East Orange, in the county of Essex and State of New Jersey, have invented a new and Improved Newspaper-Vending Machine, of which the following is a full, clear, and exact description.

This invention relates to vending machines and has particular reference to devices of the character covered by Letters Patent of the United States No. 1,285,187, issued to the American Newsvender Corporation on the 19th day of November, 1918.

Among the objects of the present improvement is to provide improved means for ejecting the newspapers singly.

Another object of the invention is to provide an improved means for preventing the introduction of a coin or check in the machine when it is empty of newspapers.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a front elevation of one of my improved vending machines.

Fig. 2 is a rear elevation of the automatic mechanism, the movable parts being shown in normal position.

Fig. 3 is a view similar to Fig. 2 but showing the ejecting mechanism moving forward in the direction of the arrow and nearing the end of its stroke.

Fig. 4 is another view of the same mechanism but indicating the locked position thereof as a result of the want of a paper within the machine, and hence preventing the introduction of a coin or check.

Fig. 5 is a front elevation of the newspaper controlling devices, the view being taken on a plane midway between the coin controlled devices and the newspaper controlling devices.

Fig. 6 is a view corresponding to Fig. 5 but indicating the position of the parts at the time the newspaper is tilted for delivery at the lower right hand corner of the casing.

Fig. 7 is a vertical transverse section on the line 7—7 of Fig. 5.

Fig. 8 is a horizontal sectional detail on the line 8—8 of Fig. 5; and

Fig. 9 is a view similar to Fig. 8 but indicating the change of position relatively between the newspaper delivering arm and the actuator therefor.

Referring now more specifically to the drawings I show at 10 a newspaper casing which in general is similar to that described in the previous patent and having a delivery mouth or opening 11 at the lower right hand corner. 12 indicates a casing for the automatic mechanism as well as the finger operating devices, and at the upper right hand portion of the casing is the coin or check admission slot 13. To the left thereof is a finger piece 14 in the form of a pin projecting forward through an arc-shaped slot 15, the center of curvature of which is at 16 around which the check controlled mechanism has oscillating movement.

Any suitable coin or check controlled devices may be employed the same *per se* constituting no part of this present invention. To lay a basis, however, for the description of the newspaper controlling devices I show the principal parts of the check controlled mechanism which are essentially the same as described in the previous patent. The coin admitted through the slot 13 drops down between the front wall 17 and the right side of the wheel 18 where it lodges adjacent to the center 16 of the mechanism. 19 is a pawl pivoted at 20 and adapted to coöperate with a lug 21 carried by the wheel 18 which will normally prevent the rotation of the wheel. The coin, however, acting upon the arm 22 of the pawl will throw the pawl into the path of the lug 21 by virtue of the spring 23 connected thereto, but held normally away from the path of the lug by means of a lug 24 on the main wheel. The pivot 20 is fixed on the front wall of the casing so that when the wheel starts to rotate in the direction indicated the pawl 19 will drop into the path of the lug 21 but for the presence of the coin stated. With the coin present, however, the lug 21 will pass freely beneath the pawl and the wheel will rotate

as far as permitted by the slot 15. This actuation of the wheel is effected by means of the pin 14 to which the operator applies the force of his thumb or finger after inserting the coin. The wheel 18 is returned to normal position after the paper has been ejected by reason of the main spring 25.

26 is a plate at the front wall of the casing 10, but which may be termed the rear wall of the coin controlled mechanism casing, that is to say the coin controlled mechanism is located between the wall 26 and the front wall 17. 27 indicates an offset portion of the wall 26, the same being offset rearward (see Fig. 7) for the accommodation of the newspaper ejecting devices including a main arm 28 mounted on a fixed pivot 29 substantially coaxial with the pivot 16. 30 is a vertical extension of the arm 28 upon which is pivoted a keeper arm 31 whose function is to control the position of the bunch of newspapers and more particularly the paper next to be delivered and also acting as a lock to prevent the introduction of an idle coin. The normal position of this keeper 31 is as indicated in Figs. 2 and 5, the keeper being pressed normally resiliently rearward by means of a spring 32 coiled around the upper end of the extension 30. Journaled loosely upon the lower end of the extension 30 is an ejector arm 33 the same being connected to a hub 34 in the nature of a bell crank having a right angularly disposed arm 35. (See Figs. 8 and 9). The free end of the arm 33 carries a spur 36 adapted to prick into the next newspaper to be delivered for its ejection.

The actuator for the newspaper arm is a U-shaped member 37 carried by an arm 38 pivoted at 39 to the main arm 28 just above the pivot 29. A spring 40 acting through a link 41, tends to hold the actuator drawn toward the left which by virtue of the arm 35 tends to hold the arm 33 forward as shown in Fig. 8. The arm 35 of the bell crank operates in a notch 37′ of the actuator. The opposite arm of the actuator is provided with a notch 42 into which a rigid pin 43 projects from the rear face of the wheel 18 just slightly to the right of the finger operating pin 14 (see Fig. 3), it being borne in mind that Fig. 3 is a rear view and the terms "right" and "left" are to be applied in this specification in accordance with the view of the machine as in Figs. 1 and 5.

In the manipulation of the device after the introduction of the proper coin the actuator will be moved toward the right after the pin 43 traverses the notch 42 from the normal position of Fig. 5 until it strikes the shoulder 44. At this time the actuator will be moved toward the right and this will cause simultaneous swinging of the keeper arm 31 and ejector arm 33 around the pivot 29, but in addition to this swinging movement of the ejector arm 33 it will be given a rotation around the axis 30 by virtue of the connection between the actuator and the arm 35 causing the spur to engage into and move the newspaper from the dotted line position 45 of Fig. 1 to the right where it will tilt and come within reach of the operator at the opening 11.

The keeper arm 31 has pivoted on its free end at 46 a presser arm 47 which lies normally substantially flat against the next newspaper to be delivered. This presser arm has a bend at 48 so that the main upper portion of this arm extends in a direction essentially toward the right and at an angle to the main portions of the arms 31 and 33.

When the newspaper has been ejected and the pin or finger piece 14 has been released the main spring 25 will restore the coin controlled parts to normal position and this action will restore the ejector parts to normal position by reason of the coöperation between the pin 43 and the wall of the notch 42 remote from the arm 28. Assuming that there is still at least one more paper in the machine the keeper arm and presser arm will glide freely thereover back to normal position, but when the last paper has been ejected the presser arm will engage a stop 49 fixed to the rear wall of the cabinet, the location of which is indicated in dotted lines in Fig. 1 and in coöperation with the presser arm in Fig. 4. This stop acts to prevent the return of the mechanism beyond the point indicated in Fig. 4 so that the unslotted portion of the wheel 18 will lie adjacent to the coin slot and prevent the insertion of another coin. Any suitable full stroke mechanism such as indicated in Figs. 2, 3 and 4 may be provided to insure that the wheel 18 must make a full oscillation in each direction before reversing. This mechanism includes a rack 50 with which cooperates a spring operated pawl 51 of well known characteristics.

I claim:

1. In a newspaper vending machine, the combination of an arm mounted to swing in an arc around a certain axis, a newspaper ejecting arm mounted upon the aforesaid arm and movable therewith, and an actuator carried by the first mentioned arm and cooperating with the latter mentioned arm to cause it to swing around an axis different from that of the first mentioned arm coincidentally with the swinging of both arms.

2. In a newspaper delivering device, the combination of an arm mounted to swing around a certain axis, an ejector arm pivoted upon the first mentioned arm and adapted to swing around an axis perpendicular to that of the first mentioned arm coincidentally with the bodily movement of the latter arm with the former arm, and an actuator piv-

oted to the first mentioned arm and serving when actuated to cause both the swinging of the first mentioned arm and the swinging of the latter mentioned arm around the first mentioned arm.

3. In a newspaper delivering device, the combination of an arm adapted to swing around an axis, an actuator pivoted to the arm and movable thereon around an axis parallel to the axis of the arm, manually operated means coöperating with the actuator to cause the swinging movements of both the arm and the actuator through a single operation, an ejector arm pivoted upon the first mentioned arm and movable bodily with the movement of the first mentioned arm, connections between the actuator and the ejector arm to cause the independent swinging of the ejector arm, and means to automatically return the aforesaid parts to normal position after being manually actuated.

4. In a newspaper vending machine, the combination of a casing, an arm pivoted in the casing for movement around a horizontal axis, an actuator pivoted to the arm for independent movement thereon, manually controlled means to move the actuator around its pivot, and newspaper ejecting means carried by the arm and serving as a connection between the actuator and the arm whereby the movement of the actuator will result in the movement of the arm and ejector means.

5. In a newspaper vending machine, the combination of a casing, a member movably mounted within the casing, an actuator connected to the member for movement independently thereof and also with the member, manually controlled means coöperating with the actuator, an ejector carried by the said member and movable thereon in a different direction from the movement of the member, connections between the ejector and the actuator to cause both movements aforesaid, and means to restore the parts to normal position after being actuated.

6. In a newspaper delivering means, the combination of a casing, a member movable in the casing, an actuator pivoted upon the member, an ejector pivoted upon the member at an angle to the pivot of the actuator, bell crank connections between the actuator and the ejector whereby the movement of the actuator around its pivot will cause the swinging of the ejector around its pivot while a continued movement of the actuator will cause the movement of both the actuator and ejector with the member first mentioned, and means to return the parts to normal position after being moved.

7. In a newspaper delivering means, the combination of a casing, a member movably mounted within the casing, an ejector pivoted upon said member, a newspaper presser arm likewise pivoted upon said member and substantially parallel to the ejector, an actuator connected to the member for the movement thereof in the casing, and bell crank connections between the actuator and the ejector to cause initially the swinging of the ejector around its axis to engage a newspaper while a continued movement thereof in the same direction will cause the ejection of the newspaper.

8. In a newspaper delivering means, the combination of a casing, an arm pivoted therein on a horizontal axis, an ejector and a presser arm pivoted coaxially upon the first mentioned arm, the ejector being freely pivoted upon the arm, spring means acting upon the presser arm tending to hold it against the newspaper next to be delivered, and an actuator connected to the first mentioned arm and serving initially to swing the ejector around its pivot to cause the engagement thereof with the newspaper to be delivered and subsequently to cause the swinging of the first mentioned arm and the parts pivoted thereon.

9. In a newspaper ejecting means, the combination with an ejector and means to actuate the same to engage and deliver a newspaper, of a presser arm movable with the ejector toward ejecting position, means to cause the presser arm to bear against the next paper to be delivered, means to return the ejector and presser arm toward normal position, and means to stop this return movement prior to reaching normal position in the event that the last paper has been delivered.

OMAR J. HOTALING.