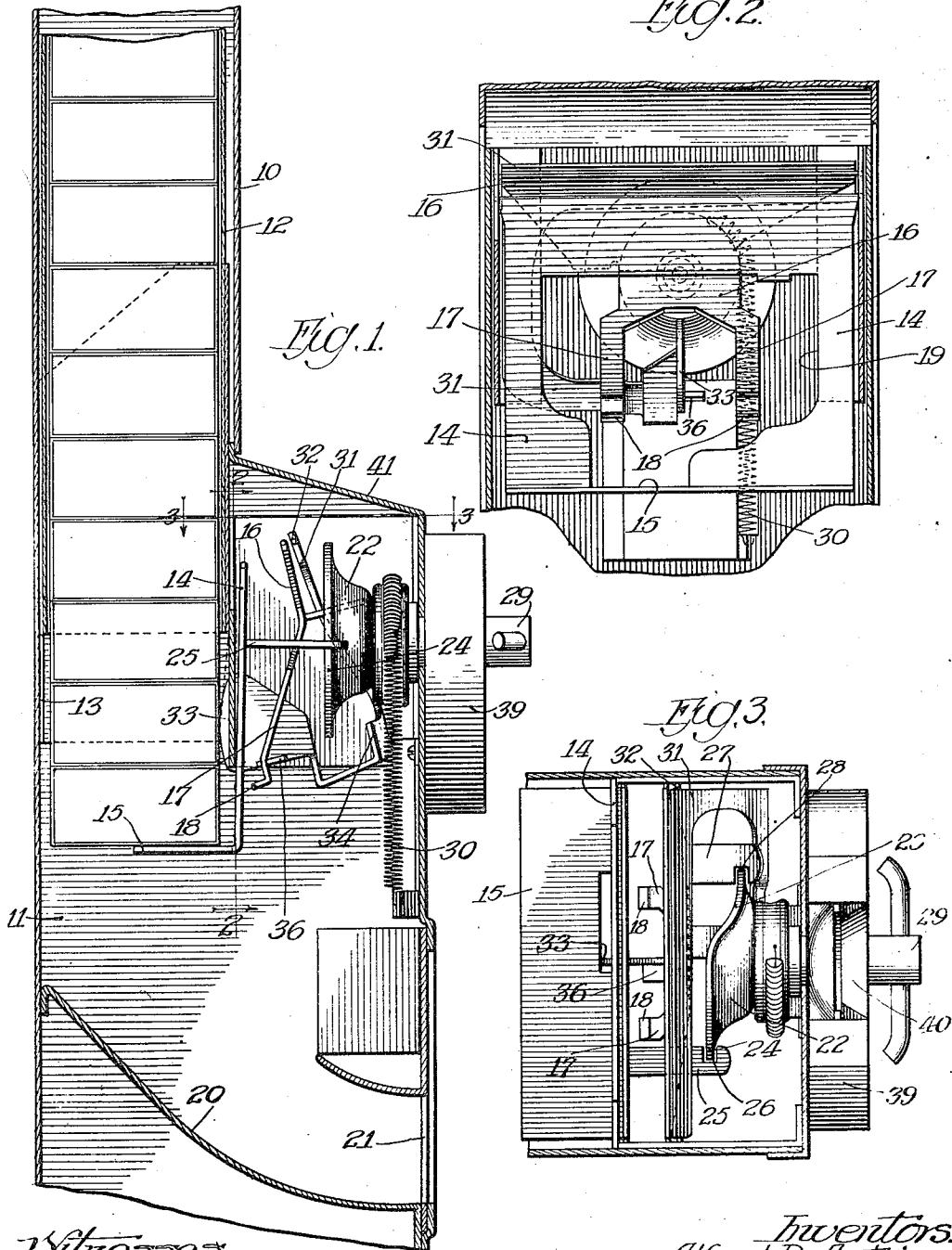


A. D. ANTOINE & C. C. TRAVIS.
 VENDING MACHINE.
 APPLICATION FILED JUNE 8, 1914.

1,145,458.

Patented July 6, 1915.
 2 SHEETS—SHEET 1.



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Fig. 4.

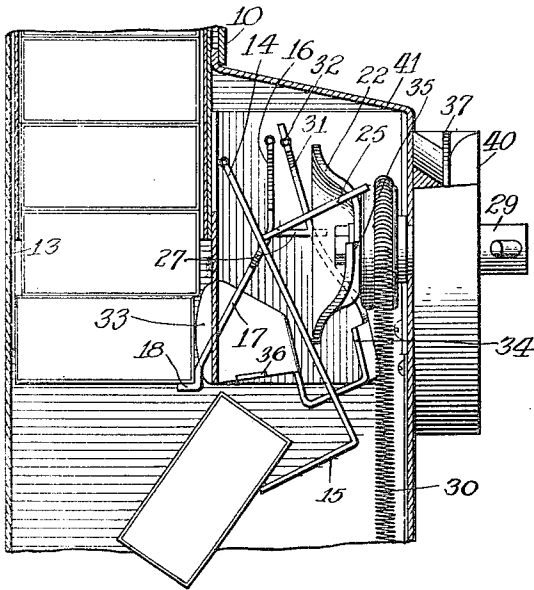


Fig. 5.

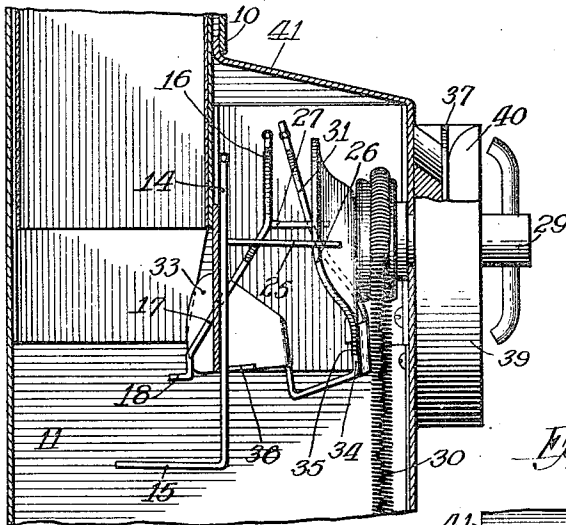


Fig. 6.

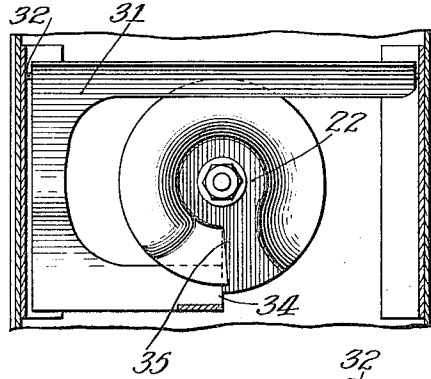


Fig. 7.

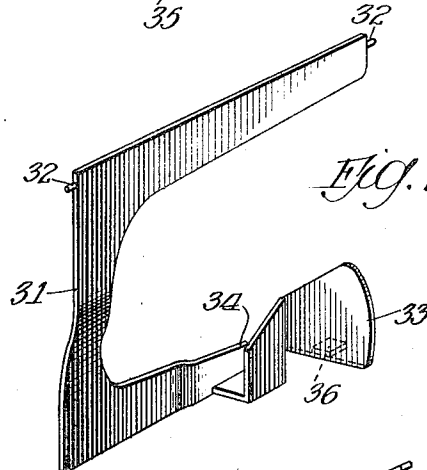


Fig. 8.

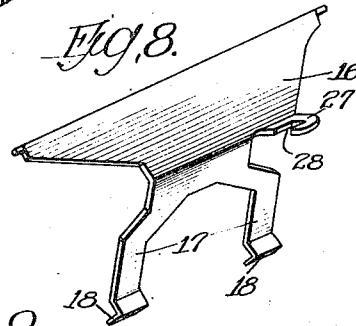
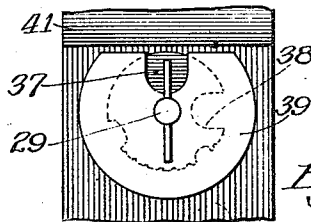


Fig. 9.



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UNITED STATES PATENT OFFICE.

ALFRED D. ANTOINE AND CLARENCE C. TRAVIS, OF CHICAGO, ILLINOIS, ASSIGNORS TO
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VENDING-MACHINE.

1,145,458.

Specification of Letters Patent.

Patented July 6, 1915.

Application filed June 8, 1914. Serial No. 843,610.

To all whom it may concern:

Be it known that we, ALFRED D. ANTOINE and CLARENCE C. TRAVIS, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

This invention relates to improvements in vending machines, particularly adapted though not necessarily limited in its use for vending small packages or articles, and one of the objects of the same is to provide an improved device of this character having means for removing one package or article from the bottom of the supply, and means adapted to be automatically positioned to receive and support the remaining supply of articles or packages while the one is being delivered from the supply.

A further object is to provide an improved device of this character, having means for automatically locking the mechanism after the last package or article has been delivered.

A further object is to provide an improved device of this character, having a check carrying disk provided with a check seat, and means for automatically locking the disk after the last package or article has been delivered, to hold the check seat in such a position that a check can not be inserted therein.

A further object is to provide an improved device of this character which will be simple, durable, cheap and compact in construction and effective and efficient in operation.

To the attainment of these ends and the accomplishment of other new and useful objects as will appear, the invention consists in the features of novelty in substantially the construction, combination and arrangement of the several parts hereinafter more fully described and claimed, and shown in the accompanying drawings illustrating the invention, and in which—

Figure 1 is a vertical longitudinal sectional view of an improved device of this character, constructed in accordance with the principles of this invention. Fig. 2 is a sectional view on line 2—2, Fig. 1. Fig. 3 is a sectional view on line 3—3, Fig. 1. Fig. 4 is a view similar to Fig. 1, showing the position the parts will assume when a

package is being delivered from the machine. Fig. 5 is a view similar to Fig. 1, showing the position the parts will assume when the machine is empty and the parts are locked against operation. Fig. 6 is a detail view, partly in elevation and partly in section showing the actuating cam and the locking means therefor. Fig. 7 is a detail perspective view of the catch or locking means for the cam. Fig. 8 is a detail perspective view of one of the swinging supports for the articles. Fig. 9 is a detail view in elevation of the check receiving disk showing the position the disk will assume when the parts are locked against operation.

Referring more particularly to the drawings and in the present form of the invention, the numeral 10 designates generally an inclosing casing having an enlarged lower portion 11, in which latter the delivery mechanism is located. Arranged within the casing is an article holder, preferably comprised of the sections 12, 13 that project into the base 11 and have an open bottom. Pivotaly mounted within the base is a swinging support 14 that is provided with a laterally projecting portion 15, adapted to project under the supply of articles to receive and sustain the articles within the holder, and to be swung about its pivot to release the lowermost article at the proper time. A second swinging support 16 is pivotaly mounted within the base 11 adjacent the first support and is provided preferably with spaced arms 17 having laterally projecting portions 18, and these arms are adapted to swing through a suitable opening 19 in the support 14, so that the laterally projecting portions 18 will pass beneath the supply of the articles to receive and sustain the articles in the holder.

The arms 17 are of such a length that the laterally projecting portions 18 will be spaced above the portion 15 of the support 14, a distance substantially equal to the thickness of the articles or packages to be vended, so that when the support 16 is moved about its pivot, the laterally projecting portions 18 will preferably engage the edge of the lowermost article of the supply, or the article resting upon the portion 15 of the support 14, to partially eject the lowermost article and also pass beneath the next adjacent article, so that when the support 14 is swung into the position shown in Fig.

4, the article resting upon the portion 14 thereof will drop from such position onto a chute or incline 20 to be delivered through an opening 21 in the front of the machine.

5 These supports 14, 16 are adapted to be swung about their pivots alternately and independently; one in advance of the other, so that when one of the supports is being moved, the other is at rest. In order to accomplish this operation, there is shown in

10 the present form of the invention, a rotatably supported cam device 22 having portions 23, 24. Connected with the support 14 and projecting therefrom is an arm 25 which is provided with a notch or recess 26 into

15 which the portion 24 of the cam 22 projects and operates, and the support 16 is also provided with a laterally projecting arm 27 having a recess 28 into which the portion 23

20 of the cam 22 projects and operates. These cam portions 23, 24, and the arms 25, 27 are so arranged, that when the cam 22 is rotated by the handle 29, the supports 14, 16 will alternately swing about their pivots, in

25 one direction when the cam is moved forwardly and in the reverse direction when the cam is rotated in the opposite direction. The parts are so constructed that there will be an interval of rest for each support, while

30 the other support is being actuated. Thus it will be manifest that the supports will be independently actuated and will be positively moved in both directions. An elastic member 30 such as a coil spring or the like

35 is connected with the cam 22 so that when the cam is rotated in one direction, a stress will be exerted upon the elastic member, which operates to return the cam when the handle 29 is released.

40 In order to lock the mechanism against actuation after the last article has been delivered from the machine, there is provided a catch device 31 which is also preferably pivotally mounted as at 32 in the base of

45 the machine and is provided with a laterally projecting portion 33 that extends into the article holder, to be engaged by the holder so that the catch will be held in an inoperative position while there are articles in the

50 holder. This catch is preferably of the gravity type and when the article holder is empty, the catch will swing forwardly so that a shoulder 34 thereon will cooperate with and engage a shoulder 35 on the cam and thereby lock the cam against rotation.

55 A stop device 36 may be provided on the catch for limiting the movement of the catch in one direction and for arresting the stop 34 in a position to be engaged by the shoulder 35, as shown clearly in Fig. 5 of the

60 drawings.

Connected with the cam 22 and preferably on the outside of the inclosing casing, is a check carrying disk 37 which is provided with a check seat 38. This disk rotates

in a housing 39 provided with a check entrance opening 40, with which the check seat 38 is adapted to be brought into register to receive the check. When the check is deposited in the seat 38, and the handle 29

70 rotated to actuate the cam, the check seat will be carried into the position shown in Fig. 1, which will be the position the check seat will assume when the machine is empty of articles, and the parts assume the position shown in Fig. 5. When there is an article or package in the holder, the portion 33

75 of the catch will engage the article or package to hold the shoulder 34 out of the position in which the shoulder 35 of the cam 80 would engage it and thereby permit a free operation of the device upon the insertion of a proper check. The section 13 of the article holder, together with the supports 14, 16, the cam 22, catch 31, check carrying disk 37

85 and housing 39, together with the cam actuating handle 29 are all mounted upon a support 41 which forms a closure for the opening in the base 11 of the machine, and through which opening the section 13 of the

90 article holder is inserted, thereby rendering it possible to remove or insert all of these parts as a unit.

What is claimed as new is:—

1. A vending machine embodying an article supply holder, a shiftable support for sustaining the article in the holder, an oscillating support movable into position to sustain the articles in the holder when the first recited support is shifted to release the

95 article, and a cam device common to the supports having a sliding connection with both of the supports for actuating them.

2. A vending machine embodying an article supply holder, a shiftable support for sustaining the article in the holder, an oscillating support movable into position to sustain the articles in the holder when the first recited support is shifted to release the

105 article, and means common to the supports for actuating them, and in opposition to each other, the said means having a loose connection with each of the said supports.

3. A vending machine embodying an article supply holder, a shiftable support for sustaining the article in the holder, an oscillating support movable into position to sustain the articles in the holder when the first recited support is shifted to release the

115 article, and a rotatable cam device common to the supports for actuating them, in opposition to each other and one in advance of the other.

4. A vending machine embodying an article holder, an oscillating support, for sustaining the articles in the holder, a second oscillating support movable into position to sustain the articles in the holder when the first recited support is moved to deliver an

125 article, and a rotatable cam device for posi-

130

tively moving the supports in both directions of their movements.

5 5. A vending machine embodying an article holder, an oscillating support, for sustaining the articles in the holder, a second oscillating support movable into position to sustain the articles in the holder when the first recited support is moved to deliver an article, and a rotatable cam device for positively moving the supports in both directions of their movements, and in opposition to each other.

10 6. A vending machine embodying an article holder, an oscillating support, for sustaining the articles in the holder, a second oscillating support movable into position to sustain the articles in the holder when the first recited support is moved to deliver an article, and a cam device for oscillating the supports in directions in opposition to each other and one in advance of the other.

15 7. A vending machine embodying an article holder, an oscillating support, for sustaining the articles in the holder, a second oscillating support movable into position to sustain the articles in the holder when the first recited support is moved to deliver an article, and a rotatable actuator for swinging one of the supports into an operative position and the other support into an inoperative position, the second recited support operating to displace the article with respect to the supply.

20 8. In a vending machine an article supply holder, embodying a pivotally mounted support for receiving and supporting the supply, a rotatable cam device, for swinging said support about its pivot to release the lowermost article, and swingingly supported means responsive to the movement of the cam device and movable into position to receive and support the supply of articles when the first recited support is moved to release an article.

25 9. In a vending machine an article supply holder embodying a pivotally mounted support for receiving and supporting the supply, a rotatable cam device, for swinging said support about its pivot to release the lowermost article, and swingingly supported means responsive to the movement of the cam device and movable into position to receive and support the supply of articles when the first recited support is moved to release an article, the said supports swinging independently and in opposition to each other and one in advance of the other.

30 10. A vending machine embodying an article supply holder, a pair of swingingly mounted supports adapted to be alternately moved into positions to receive and support the supply and out of such positions, said supports moving in opposition with respect to each other, a cam device for moving the parts, and means for locking the parts

against movement when the machine is empty.

11. A vending machine embodying an article supply holder, a pair of swingingly mounted supports adapted to be alternately moved into positions to receive and support the supply and out of such positions, said supports moving in opposition with respect to each other, independently and one in advance of the other, a cam device for positively moving the supports in both directions, and means for automatically locking the cam device and supports against movement.

12. A vending machine embodying an article supply holder, a pair of supports, movable alternately into positions to receive and support the supply and movable out of such positions, said supports moving in opposition with respect to each other and one in advance of the other, a cam device for actuating the supports, and means whereby the actuation of the cam device will positively move the supports in both directions.

13. A vending machine embodying an article supply holder, a pair of supports, movable alternately into positions to receive and support the supply and movable out of such positions, said supports moving in opposition with respect to each other and one in advance of the other, a cam device for actuating the supports, and means whereby the actuation of the cam device will positively move the supports in both directions, one of said supports being maintained in a position of rest when the other support is moving.

14. A vending machine embodying an article supply holder, a pair of supports movable alternately into positions to receive and support the supply and movable out of such positions, said supports moving in opposition with respect to each other and one in advance of the other, a cam device for actuating the supports, means whereby the actuation of the cam device will positively move the supports in both directions, and means controlled by the supply of articles for locking the cam against actuation.

15. A vending machine embodying an article supply holder, a pair of supports movable alternately into positions to receive and support the supply and movable out of such positions, said supports moving in opposition with respect to each other and one in advance of the other, a cam device for actuating the supports, means whereby the actuation of the cam device will positively move the supports in both directions, and a swinging catch for locking the cam against actuation, said catch being held inactive by the supply of articles.

16. A vending machine embodying an article supply holder, a pair of supports movable alternately into positions to receive

and support the supply and movable out of such positions, said supports moving in opposition with respect to each other and one in advance of the other, a cam device for
5 actuating the supports, means whereby the actuation of the cam device will positively move the supports in both directions, a shoulder on the cam, and a catch controlled
10 by the supply of articles and adapted to engage with the said shoulder, for locking the cam against actuation.

17. A vending machine embodying an article supply holder, a pair of supports movable in opposition to each other for
15 alternately receiving and sustaining the supply, a cam device for actuating the supports to cause one to deliver an article and the other to restrain the supply, an actuator for the cam, and means operating automatically
20 to lock the actuator against operation under predetermined conditions.

18. A vending machine embodying an inclosing casing, a sectional article supply holder therein, a plurality of supports also in the casing and operating to alternately
25 receive and sustain the supply of articles, a rotatable cam device for actuating the supports, and means for returning the actuator, a section of the supply holder, the supports, the actuator and the said means being self-
30 contained, and removable from the casing as a unit.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses, on this 4th day of
June A. D. 1914.

ALFRED D. ANTOINE.
CLARENCE C. TRAVIS.

Witnesses:

I. M. BARING,
J. H. JOCHUM, Jr.