G. H. MATCHETT.

VENDING MACHINE.

APPLICATION FILED JAN. 30, 1914.

1,385,087. Patented July 19, 1921.

2 SHEETS—SHEET 1.

Fig. 3.

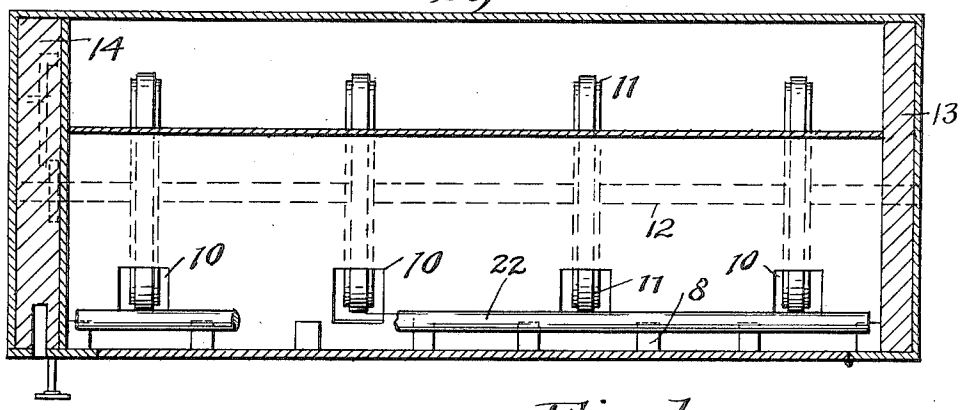


Fig. 2.

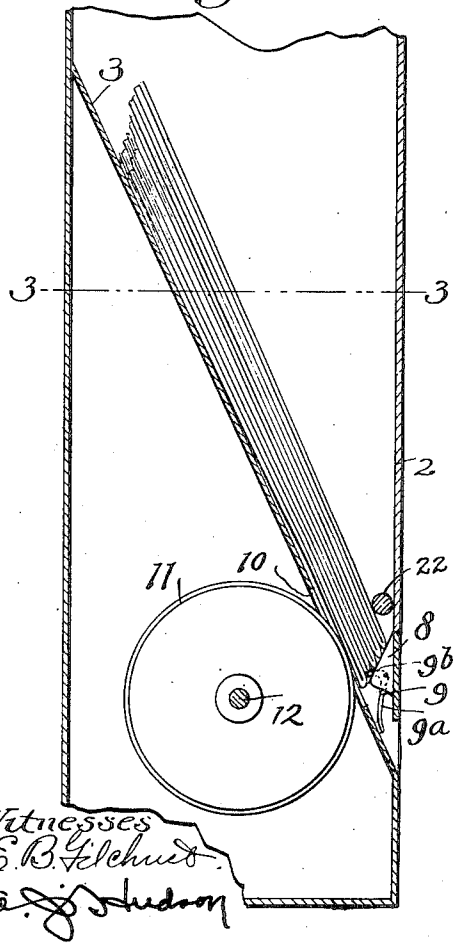
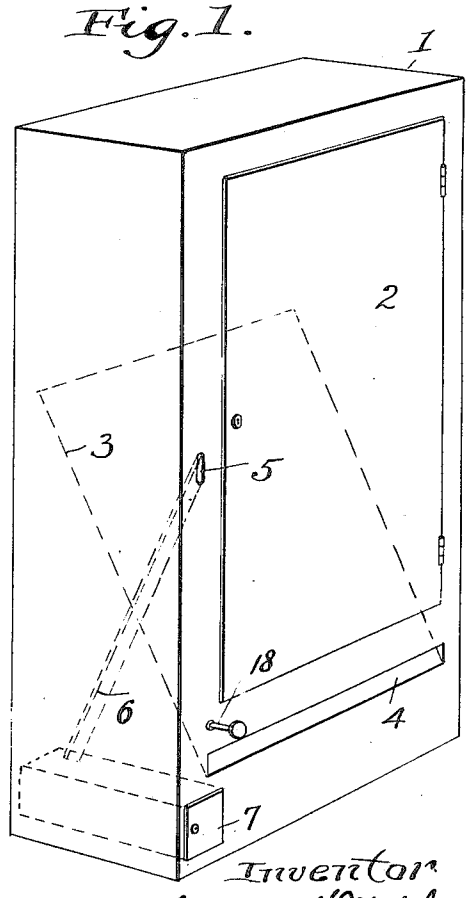


Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 4.

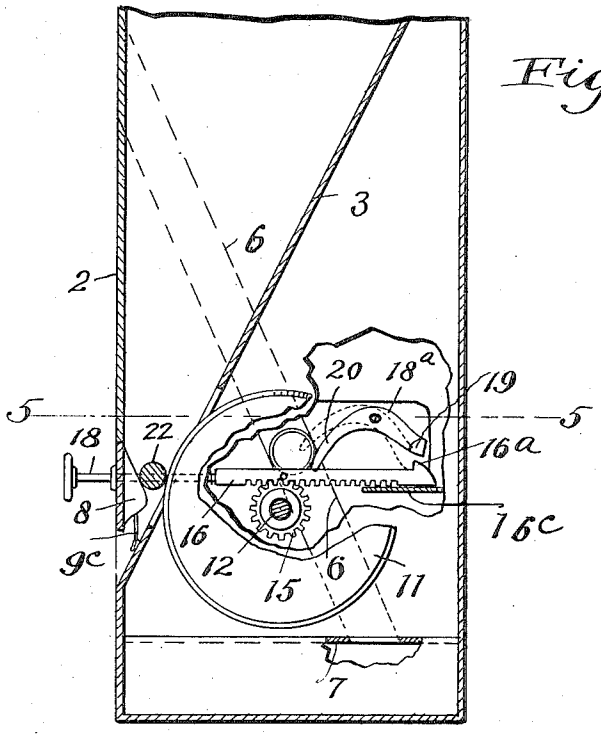


Fig. 6.

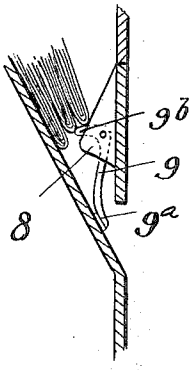
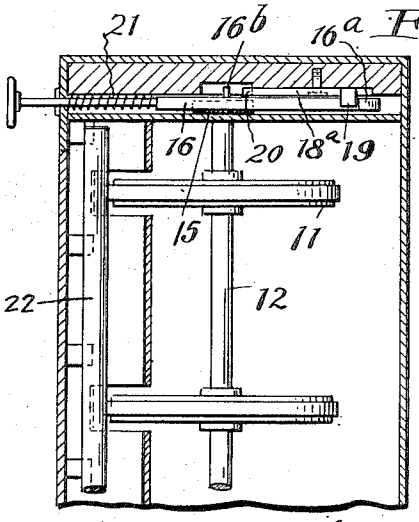


Fig. 5.



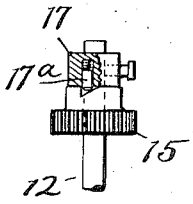


Fig. 7.

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UNITED STATES PATENT OFFICE.

GEORGE H. MATCHETT, OF LAKEWOOD, OHIO.

VENDING-MACHINE.

1,385,087. Specification of Letters Patent. Patented July 19, 1921.

Application filed January 30, 1914. Serial No. 815,565.

To all whom it may concern:

Be it known that I, GEORGE H. MATCHETT, a citizen of the United States, residing at Lakewood, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Vending-Machines, of which the following is a full, clear, and exact description.

This invention relates to a device which is especially adapted for the vending of periodicals such as newspapers, and it possesses great utility in that the newspapers may be placed within the device just as they come folded from the press.

The machine comprises in general a magazine for holding the newspapers or periodicals in proper position to be extruded through an opening in the magazine, mechanism for retaining the papers, and mechanism for forcing out the lowermost or bottom newspaper when the extruding mechanism is actuated.

Generally speaking, the invention comprises the elements and combinations thereof set forth in the accompanying claims.

Reference should be had to the accompanying drawings forming a part of this specification, in which Figure 1 is a perspective view showing the device as a whole; Fig. 2 is a sectional elevation through the device; Fig. 3 is a top plan view of the device with certain parts in section; Fig. 4 is a sectional elevation of the device showing the operating mechanism; Fig. 5 is a plan view along the line 5—5 of Fig. 4; Fig. 6 is an elevation in section showing a detail of the device; and Fig. 7 is a plan, partly in section, showing a one-way clutch used in the device.

It will readily be appreciated that devices which are placed in public places for the purpose of vending merchandise, require as a first requisite that their mechanism shall be free from intricacy, because such devices are usually more or less played with by inquisitive persons, and intricate mechanism would easily be placed out of adjustment, and out of use, requiring constant attention, and thus greatly increasing the cost of upkeep of the machine.

It is my object to produce a simple mechanism for operating a vending machine which will not readily get out of order.

The casing of the machine is generally represented at 1, and this casing is provided with a door 2, suitably hinged and preferably provided with locking mechanism. Within the interior of the casing there is a plate 3, upon which is supported the periodicals to be vended. This plate, by its slanting position, will by gravity tend to feed the papers toward the slot 4, through which the papers are individually extruded, when the vending mechanism is operated.

A slot 5 is formed in the casing, which registers with a track member 6, that guides the coin to a cash drawer 7, which is situated in the lower part of the casing. A weighted roller 22 rests upon the periodicals within the magazine, and presses the papers toward the rollers 11.

Upon the front wall of the casing, just above the slot, I provide an inwardly extending ledge which is indicated at 8 in Fig. 2. This ledge extends across the machine, and receives the lowermost edges of the papers or periodicals within the magazine. The ledge is spaced from the plate 3, a distance sufficient to allow the lowermost paper to slide beneath it.

Throughout the extent of the ledge 8, there are provided a number of devices which will prevent the periodical just above the lowest periodical from sliding simultaneously with the lowermost periodical into the space between the ledge 8 and the plate 3, the purpose of such devices being to engage the paper next to the lowest one and retain it, while the lowermost paper is being extruded.

As one form of device which may accomplish this purpose, I have shown a pivoted dog 9, the same being pivoted to portions of the ledge 8, and provided with an arm 9^a which extends into the path of movement of the lowermost paper in the magazine, as it is being extruded. The other end of the dog is provided with a nose 9^b having a friction surface, such for instance as a rubber surface.

When the lowermost paper is extruded and engages with the arm 9^a, this arm will be pushed outwardly and cause the nose 9^b to be pushed inwardly, and this nose will engage with the forward edge of the paper just above the lowermost one, and positively hold it from passing into the narrow space between the ledge 8 and the plate 3.

In Fig. 4, I have shown another form of retaining device, the same being a flexible spring 9^c which is supported by the magazine casing and extends adjacent to the slot

4, to prevent the crowding of papers into the throat ahead of slot 4.

There may be a number of such devices as 9 or 9^e supported relative to the papers within the magazine extending throughout the length of the ledge 8.

The plate 3 is provided with a number of slots or openings which extend across the same. These slots are indicated at 10, and through the slots extend the peripheries of wheels 11. These wheels on their outer surfaces are provided with suitable friction material which will engage with the lowermost newspaper, and as the wheels are turned, cause the lowermost paper to be moved along the plate 3 and through the slot 4.

The wheels 11 are mounted upon a common shaft 12, which extends longitudinally of the casing, and at its opposite ends is suitably journaled in end pieces 13 and 14.

One end of the shaft 12 is provided with a gear wheel 15 which is free to rotate upon the shaft and there is a spring-pressed pawl 17^a carried by a sleeve 17 which is secured to the shaft 12,—this construction forming a one-way clutch so that when the gear wheel 15 is moved to turn the wheels 11 in a direction to extrude a paper, the gear wheel 15 will be clutched to the shaft 13, but the gear wheel 15 will not be permitted to turn in the opposite direction, without affecting the shaft.

The gear wheel 15 is engaged by a rack 16 which at its inner end may be supported upon a ledge 16^c, and at its outer end is secured to a rod 18. When the rod 18 is pulled outwardly, it will cause the rack 16 to turn the gear wheel 15 in the proper direction to cause the wheels 11 to push a paper through the slot 4.

The rack 16 is normally locked against movement by a pawl 18^a. This pawl has a weighted nose 19, which engages with a shoulder 16^a upon the rack, and prevents the rack from being pulled forward or outward. This pawl has an arm 20 which extends into the guiding device 6, which guides the coin to the cash drawer, so that when a coin passes through the guide 6, it will hit against the arm 20, depressing the same, and raising the nose 19 from the shoulder 16^a, thus permitting the rack 16 to be drawn forward.

The rack is provided with a pin 16^b which extends into the path of movement of the coin in its guide 6, and detains the coin in its travel. This will prevent the pawl 18^a from engaging with the shoulder 16^a, until the rack 16 is drawn forwardly, at which time the pin 16^b releases the coin, due to the fact that the rack has moved forward, and therefore the nose of the pawl 18 is permitted to drop, and when the rack 16 is drawn inwardly by the spring 21, the nose of the pawl 18^a will ride up over the end of the rack and drop in front of the shoulder 16^a.

It will be obvious that various modifications may be made in the details of the construction here shown without departing from the spirit of the invention.

Having thus described my invention, what I claim is:

1. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which periodicals may be extruded, means which when operated extrudes a periodical from the magazine, a movable member adjacent the said opening, said movable member being operable upon the extrusion of a periodical to positively intercept and obstruct movement of the periodical next to the one being extruded, whereby the extrusion of more than one periodical is prevented.

2. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which periodicals may be extruded, means which when operated extrudes a periodical from the magazine, means operable by a periodical during extrusion movement, said means being moved to positively intercept movement of the periodical which is next to the one being extruded, whereby the extrusion of more than one periodical at an operation is prevented.

3. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which periodicals may be extruded, means which when operated extrudes a periodical from the magazine, a movable retaining member adjacent to said opening, said retaining member having a periodical engaging part and a portion adapted to be engaged by a periodical being extruded, whereby when a periodical is extruded the periodical engaging part of the retaining member is caused to impinge against the adjacent periodical to positively intercept and obstruct movement of said adjacent periodical to prevent the same from moving with the periodical being extruded.

4. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which periodicals may be extruded, means which when operated extrudes a periodical from the magazine, a movable retaining member, mounted for movement in a direction substantially at right angles to the plane in which a periodical moves during extrusion, said retaining member having a portion adapted to be engaged by a periodical being extruded, thereby moving the retaining member into engagement with the periodical adjacent the

one being extruded, whereby the extrusion of more than one periodical is prevented.

5. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which a periodical may be extruded, means which when operated extrudes a periodical from the machine, a pivoted member adjacent the said opening said member having a nose and an arm, the arm being engaged by a periodical as it is being extruded, thereby moving said nose to impinge against the periodical which is adjacent the one being extruded to positively intercept and obstruct movement of said adjacent periodical to prevent the same from moving with the periodical being extruded.

6. In a periodical vending machine, the combination with a magazine adapted to hold periodicals, said magazine having an opening through which periodicals may be extruded, means which when operated extrude the periodicals from the magazine, a retaining member adjacent the said opening in the magazine and adapted to be engaged by the periodical being extruded whereby said retaining member is moved against the forward end of the periodical next to the periodical being extruded thereby preventing extrusion of more than one periodical at an operation.

7. In a periodical vending machine the combination with a magazine adapted to hold periodicals said magazine having an opening through which a periodical may be extruded, means which when operated extrudes the periodical from the magazine, a pivoted member having a foot and an arm, the arm being engaged by a periodical as it is being extruded thereby moving the foot into engagement with the forward end of the periodical next to the periodical being extruded thereby preventing more than one periodical being extruded at an operation.

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

GEORGE H. MATCHETT.

Witnesses:
A. J. HUDSON,
L. I. PORTER.