H. RUBENSTEIN.

VENDING APPARATUS.

APPLICATION FILED AUG. 5, 1916.

1,222,471.

Patented Apr. 10, 1917.

4 SHEETS—SHEET 1.

Fig. 2.

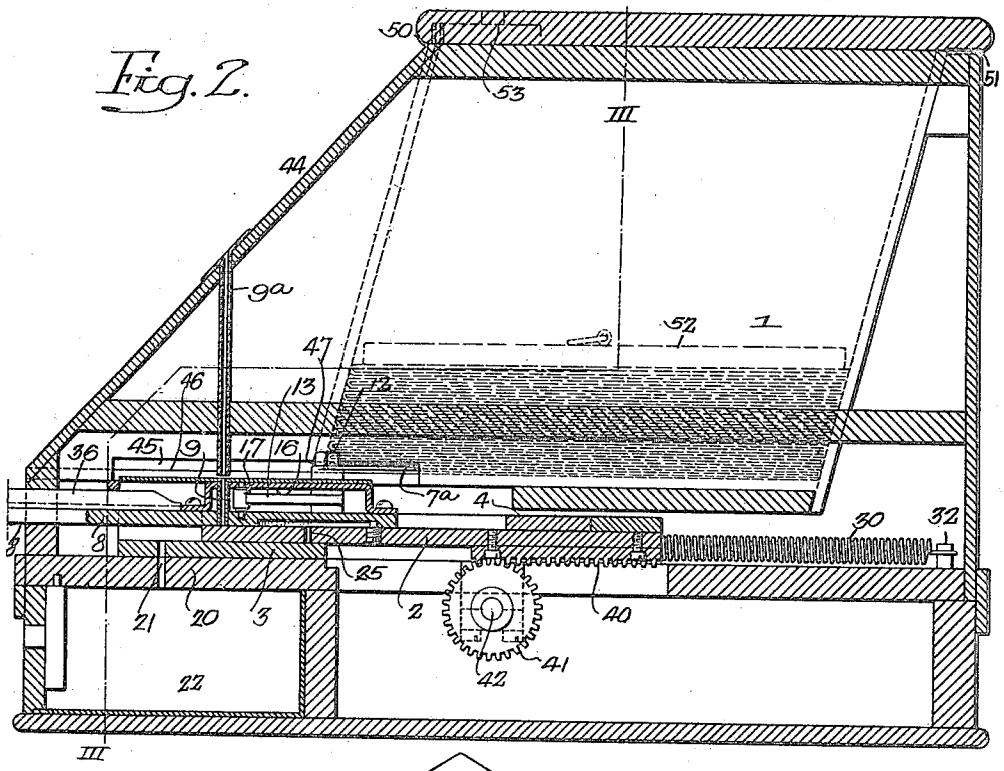
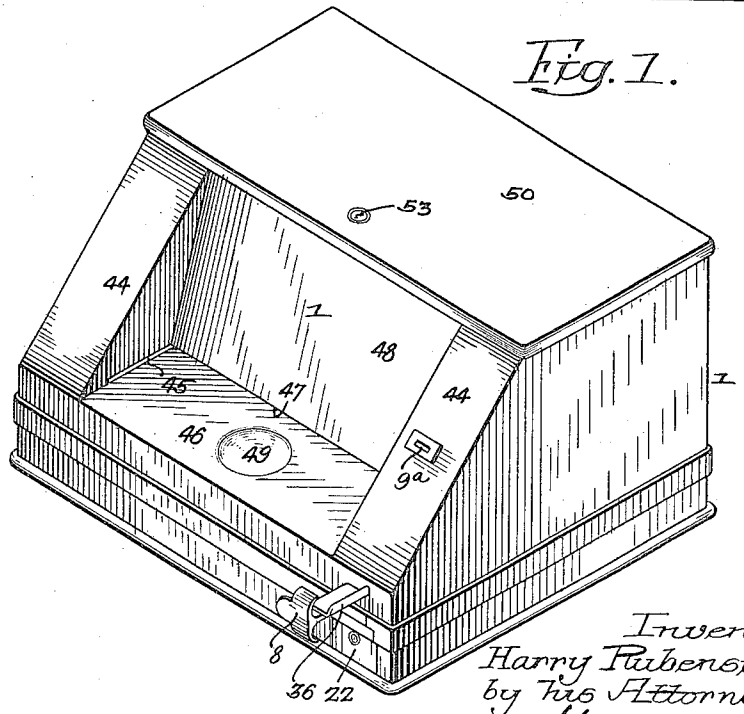


Fig. 1.



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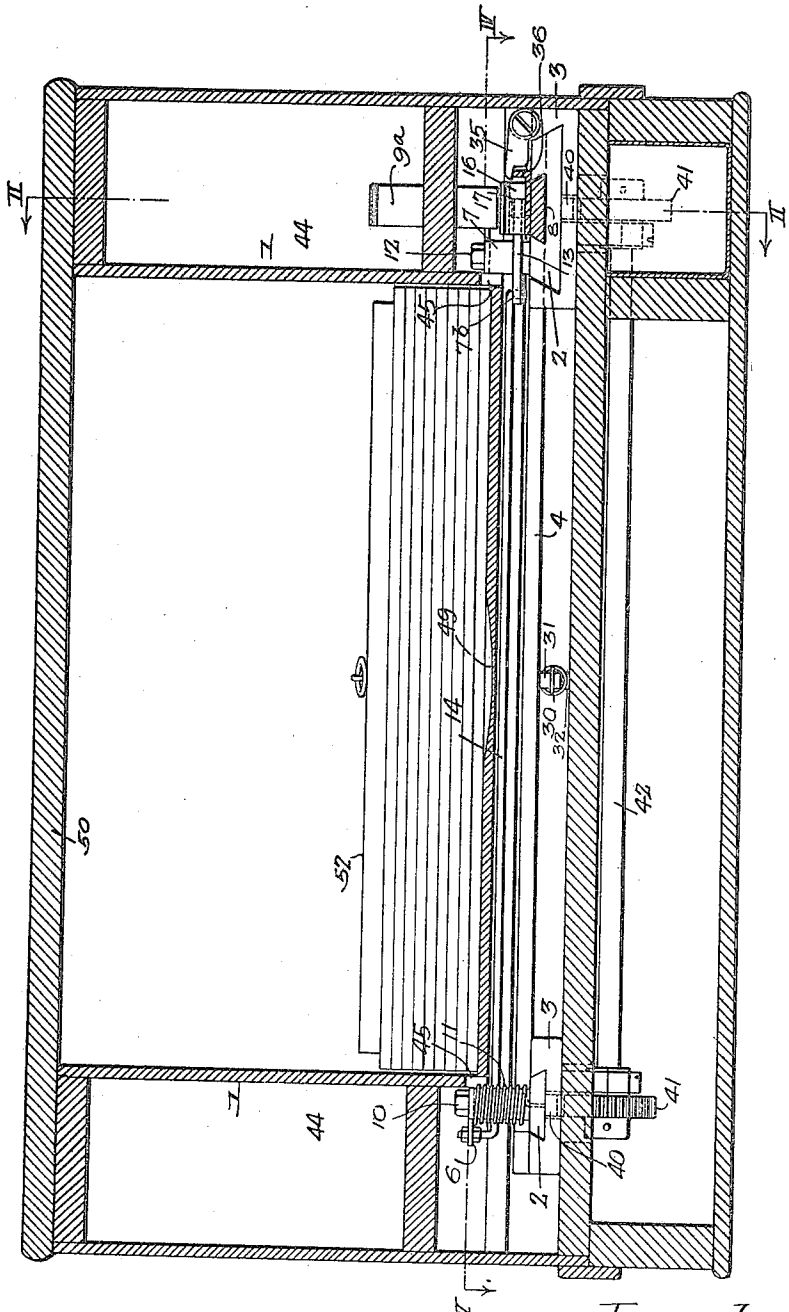


Fig. 3.

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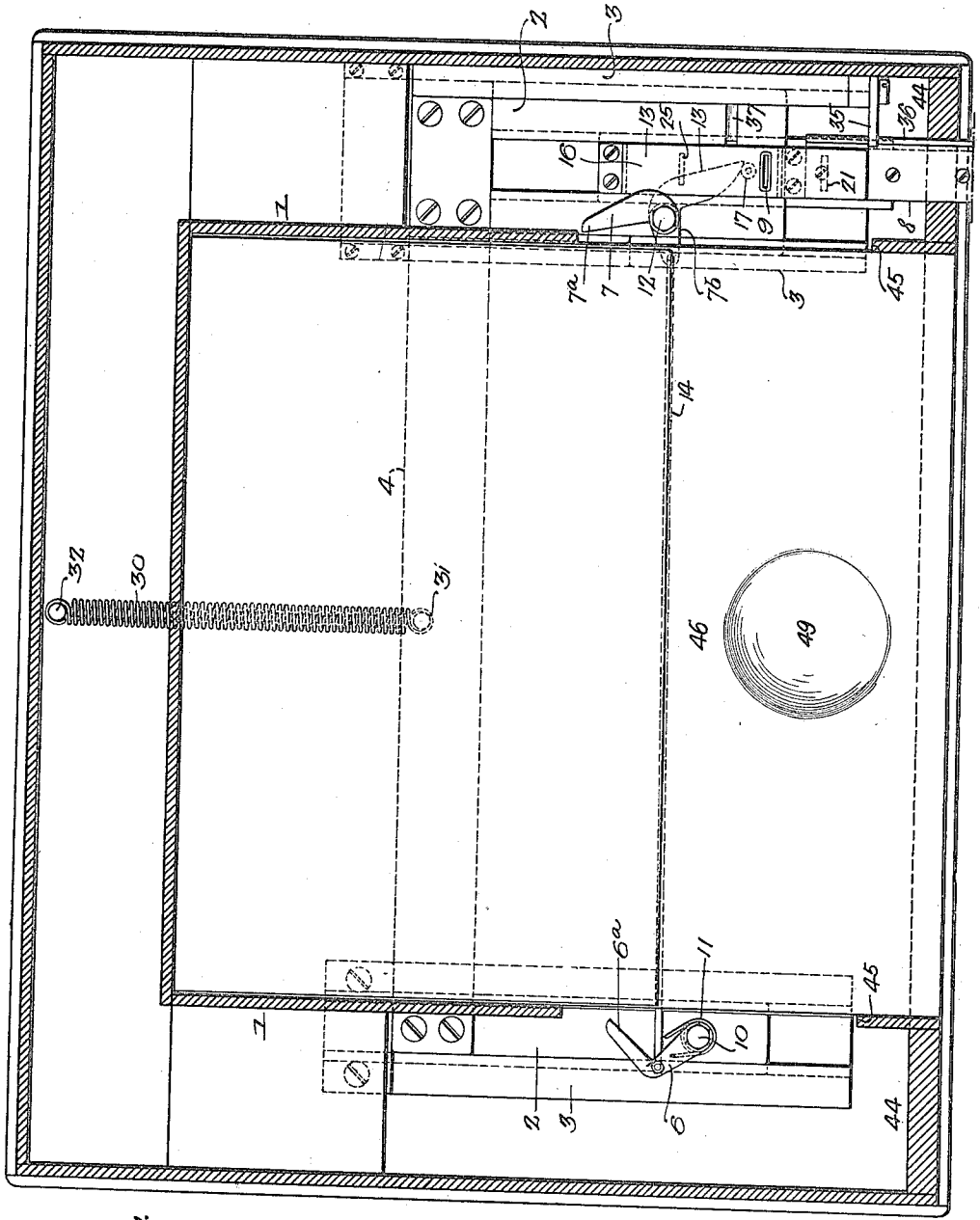


Fig. 4.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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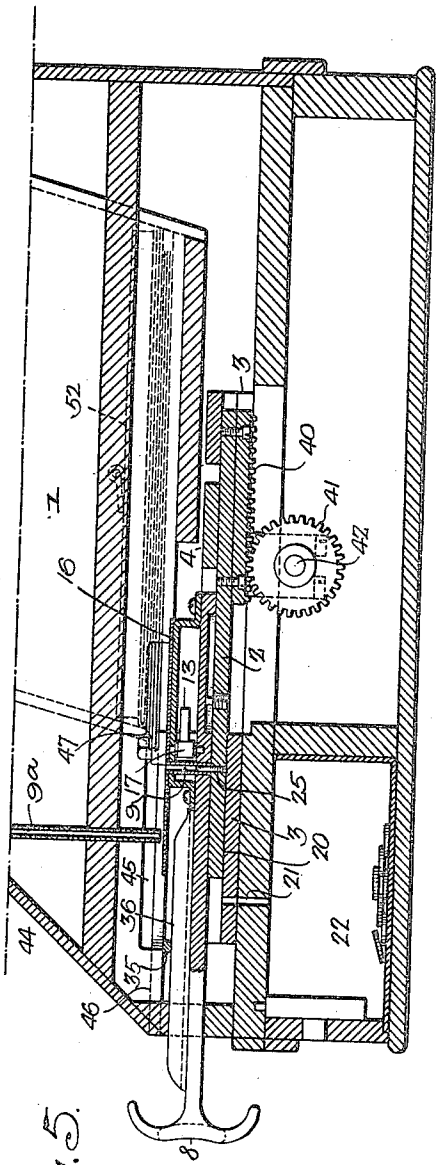


Fig. 5.

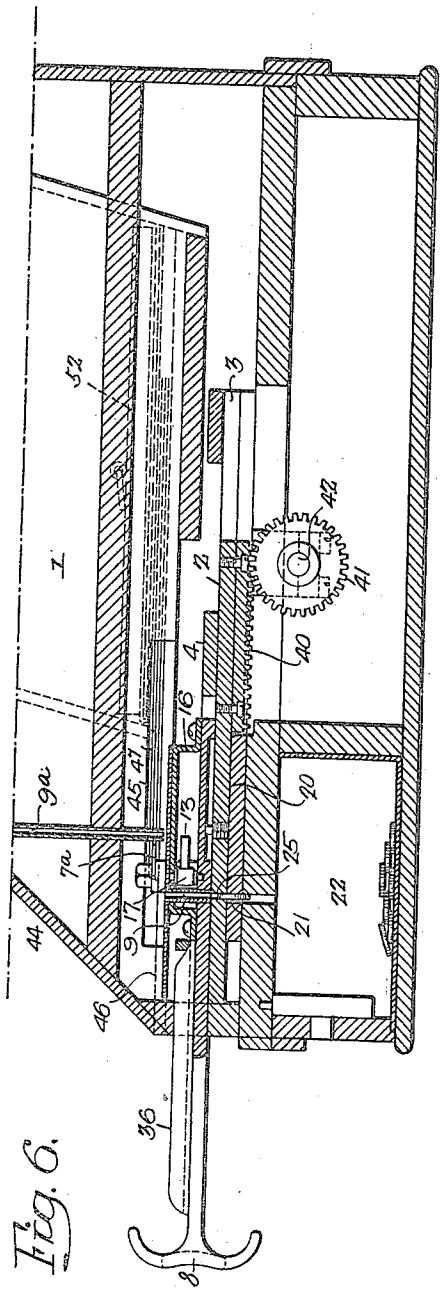


Fig. 6.

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UNITED STATES PATENT OFFICE.

HARRY RUBENSTEIN, OF PHILADELPHIA, PENNSYLVANIA; SAID RUBENSTEIN ASSIGNOR TO HIMSELF, JACOB EDGAR SEIFERT, AND JOSEPH WAGNER, JR., ALL OF PHILADELPHIA, PENNSYLVANIA.

VENDING APPARATUS.

1,222,471. Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed August 5, 1916. Serial No. 113,381.

To all whom it may concern:

Be it known that I, HARRY RUBENSTEIN, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Vending Apparatus, of which the following is a specification.

The object of my invention is to provide a simple and compact structure for the vending of various articles of a thin, flat character, being particularly adapted for the vending of newspapers, paper towels, or flat packets generally.

These and other features of my invention will be more fully described hereinafter, reference being had to the accompanying drawings, in which:

Figure 1, is a perspective view of a vending structure made in accordance with my invention.

Fig. 2, is a sectional elevation on the line II—II, Fig. 3.

Fig. 3, is a sectional elevation on the line III—III, Fig. 2.

Fig. 4, is a sectional plan view on the line IV—IV, Fig. 3, and

Figs. 5 and 6, are views illustrating different positions of certain parts of the apparatus that are assumed in the operation of the same.

The main body of the receptacle, indicated at 1, receives a plurality of folded newspapers or other flat articles, such as paper towels, flat packets, and the like and, if desired, a weight may be disposed above the same to insure maintenance of the lowermost paper or article in position to be discharged upon proper operation of the apparatus.

Below the body of papers, a sliding frame is mounted, comprising end pieces 2, adapted to slideways 3, at the sides of the structure, which end pieces are connected by a cross-piece 4. The slidable end pieces carry pivotally disposed arms or levers 6 and 7, which are adapted to be placed in operative position by an operating handle 8 to extract a paper or other article or object after the deposit of a coin in the slot 9 of said handle; a coin channel 9^a being provided in the casing leading to said slot 9.

The arm or lever 6 is pivotally mounted upon a post 10, which is provided with a torsion spring 11, tending to maintain said arm or lever in the inoperative position. The engaging portion 6^a of the arm or lever 6, is quite thin, and it is disposed to move in a plane coincident with the lower newspaper, towel, or object to be vended, and is designed, when newspapers are being vended, to engage the bend or bight of the latter; such bight portion being disposed in the forward part of the machine.

The arm or lever 7 is disposed in the same plane as the arm or lever 6, being pivotally mounted upon a post 12, and in addition, it carries a projecting finger 13, extending rearwardly of the article-engaging portion 7^a of the arm 7, and substantially in line therewith, for a purpose to be described.

While the arm or lever 6 is pivotally mounted on the post 10 at its end, the arm or lever 7 is pivotally mounted on its post 12 in a mid position, and the end 7^b of the same is connected by means of a rod 14 with the arm or lever 6 substantially at the mid portion of the same. Hence, any movement imparted to the arm or lever 7 by engagement with the finger 13 will be communicated to the arm or lever 6, so that the latter may move simultaneously with the arm or lever 7; both of said arms being moved toward each other to engage an article to be vended and the engaging portion 7^a of the arm or lever 7 moving in the same plane as the engaging portion 6^a of the arm or lever 6.

Suitably mounted at the side of the machine and arranged to slide in line with one of the end pieces 2 of the sliding frame is the handle 8 having a housing or guard 16 overlying the finger 13 of the arm or lever 7; such housing being provided with a post having a roller 17 adapted to engage said finger 13 when the handle is pushed in, moving said finger and with it the engaging portion 7^a of the arm or lever 7 into en-

gagement with a newspaper or other article to be vended, and simultaneously therewith the engaging portion 6ª of the arm or lever 6 is moved into engagement with the same object or article at the opposite end of the same.

The handle is slidable independently of the end section 2 of the frame upon which the newspapers or other articles are mounted, but is also movable therewith when locked thereto by the interposition of a coin, while below said slidable end is a shelf 20 having a slot 21 communicating with a cash receptacle 22 into which the coin will drop when the handle is pulled forward to the full extent to withdraw a newspaper or other article carried by the machine.

The housing portion of the handle has the coin slot 9, and one of the end portions 2 of the sliding frame upon which the newspapers or other articles to be vended rest is provided with a slot 25, and these slots 9 and 25 are brought into registry when the handle is pushed in, as shown in Fig. 5; such action also moving the arm or lever 7 on its pivot by engagement with the finger 13 thereof. When the handle is moved in the full distance, the coin will drop into the slot of the end member 2, thereby locking it to the handle, so that if the handle be then withdrawn, the engaging portions 6ª and 7ª of the arms or levers 6 and 7 will be held in the position to which they were moved to withdraw a paper or other article. The handle 8 may then be drawn out against the tension of a spring 30; one end of which is connected at 31 to the sliding frame supporting the newspapers or other articles, while the other end is connected at 32 to the fixed portion of a casing, until the coin is brought into registry with the slot 21 leading to the money receptacle, whereupon it will drop into the same, releasing the handle ready for fresh insertion.

It is desirable that the handle be held in fixed position a short while after it has been pulled out in order that a paper may be extracted, and for this purpose I provide a pivoted latch 35, carried by the casing, which is adapted to ride on a ledge 36 carried by the handle as the handle is pulled out, and to drop into a notch 37 formed in the slidable end 2 at the end of said ledge, and the latter may slope into said notch. The notch is of relatively shallow depth, and disengagement of the latch therewith so that the handle may be retracted to normal position for further operation, is readily accomplished by pushing the handle rearwardly, whereupon the sloping end of the ledge 36 will engage the latch 35 and lift it out of the shallow notch 37 in the slidable end 2.

It will be understood, of course, that the handle is guided in a suitable manner so that it may be moved back and forth in perfect alinement and without binding at any point, to insure proper coöperation with the sliding end 2 when the coin is inserted, and withdrawal of the papers or other objects.

In order that the sliding ends 2 of the frame supporting the papers or other objects may freely move back and forth in complete parallelism, I provide racks 40 on the under side of said sliding ends, with which pinions 41, carried by a shaft 42 mesh; motion imparted to one of said pinions at the handle end of the machine being transmitted directly to the other pinion, so that both ends 2 of the sliding frame will move simultaneously.

The receptacle for the papers or other vendible articles has its side portions 44 slotted at 45 in line with a shelf 46 upon which the papers or other articles are delivered, so that the engaging portions 6ª and 7ª of the arms or levers 6 and 7 may be moved forward to deliver a paper or other article through the slot or opening 47 under the front board 48. To facilitate extraction of the paper or other article from the casing, the shelf 46 may be recessed as indicated at 49 to accommodate the fingers of the purchaser.

The receptacle may be filled by lifting the top 50, which is hinged at 51, and after the papers or other vendible articles have been set in place with a suitable weighted member 52 on top of the same, the top may be secured in place against intrusion; a lock 53 being provided for the purpose.

I claim:

1. The combination, in a vending machine, of a receptacle for flat units in superposed position, an outwardly movable slidably mounted bottom for said receptacle, movable members carried at the ends of said slidable bottom for engaging the vendible units to withdraw the same upon the outward movement thereof, and means for placing said engaging members in the operative or unit-engaging position when moved in one direction and for withdrawing the sliding bottom with said members in operative engagement with the lowermost vendible unit whereby the latter may be extracted, when moved in the opposite direction.

2. The combination, in a vending machine, of a receptacle for flat units in superposed position, an outwardly movable slidably mounted bottom for said receptacle, movable members normally inactive carried at the ends of said slidable bottom for engaging the vendible units to withdraw the same upon the outward movement thereof, and slidable means for simultaneously placing said engaging members in the operative or unit-engaging position when moved in one direction and for withdrawing the slid-

able bottom with said members in the operative position when moved in another direction; said members moving with the slidable bottom and carrying out the lowermost vendible unit.

3. The combination, in a vending machine, of a casing adapted to receive superposed vendible units, an outwardly movable slidably mounted bottom for said casing, means tending to hold said bottom in one position, article-engaging members normally inactive carried at the ends of said sliding bottom, means for placing said engaging members in the operative engaging position, and a handle for operating said sliding bottom after the insertion of a coin; said coin serving to lock the handle, engaging members and sliding bottom whereby the latter may be pulled out by the handle; the article engaging members carrying out one of the vendible units.

4. The combination, in a vending machine, of a casing adapted to receive superposed vendible units, a sliding bottom for said casing, means tending to hold said bottom in one position, article-engaging members normally inactive carried by said sliding bottom, means for placing said engaging members in the operative position and for locking the same in such position after the insertion of a coin, a handle, means for holding the handle when the latter is withdrawn, and means for imparting parallel movement to the ends of the sliding bottom.

5. In a vending machine, the combination of a casing receiving vendible units, a sliding bottom frame for the same, pivotally mounted engaging members carried by said bottom frame having arms adapted to engage vendible units to withdraw the same, means for turning said engaging members upon their pivots, said members being connected so that movement imparted to one will be transmitted to the other, and a torsion spring carried by one of said engaging members for moving both to the inoperative position.

6. In a vending machine, the combination of a casing receiving vendible units, a sliding bottom frame for the same, pivotally mounted engaging members carried by said bottom frame having arms adapted to engage vendible units to withdraw the same, one of said members having a projecting finger, means adapted to be brought into engagement with said finger to turn said engaging members upon their pivots, a rod connecting said members so that movement imparted to one will be transmitted to the other, a torsion spring carried by one of said engaging members for moving both to the inoperative position, and means for temporarily locking said engaging members in the operative position whereby forward movement imparted to the same will extract one of the vendible units.

7. The combination, in a vending machine, of a receptacle for relatively flat vendible units in superposed position, an outwardly movable slidably mounted bottom for said receptacle, engaging members carried at the ends of said slidable bottom and movable with said bottom and independently of the movement thereof for extracting the vendible units, means for placing said engaging members in the operative position, and means for withdrawing the sliding bottom with said members in the operative position and in contact with the lowermost unit; the sides of the receptacle being slotted for the passage of said engaging members when the slidable bottom is moved forward.

8. The combination, in a vending machine, of a casing adapted to receive superposed vendible units, a sliding bottom for said casing, means tending to hold said bottom in one position, article-engaging members carried by said sliding bottom, means for placing said engaging members in the operative position, means for withdrawing the sliding bottom, and racks and pinions for insuring parallel movement of both ends of said sliding bottom in both directions.

9. In a vending machine, the combination of a casing receiving vendible units, a sliding bottom frame underlying said units and adapted to be withdrawn and carry out the lowermost unit, pivotally mounted engaging members carried by said bottom frame having arms adapted to engage the vendible units to withdraw the same, a rod connecting said arms, means for turning one of said engaging members upon its pivot, such movement being imparted to the other engaging arm by the connecting rod, and means carried by one of said engaging members for moving both of the same to the inoperative position; said means being brought automatically into action when the means tending to hold said engaging members in the operative position is released.

10. The combination, in a vending machine, of a receptacle for relatively flat vendible units in superposed position, movable members slidably mounted at the ends of said receptacle for engaging the vendible units, and means for placing said engaging members in the operative position and for withdrawing said members when in the operative positoin to extract a vendible unit.

11. In a vending machine, the combination of a casing receiving vendible units, pivotally mounted slidable engaging members adapted to be withdrawn and carry out the lowermost unit, said members hav-

