(No Model.) 2 Sheets—Sheet 1.

T. C. KIRKHAM.

VENDING MACHINE.

No. 488,610. Patented Dec. 27, 1892.

Fig. 1.

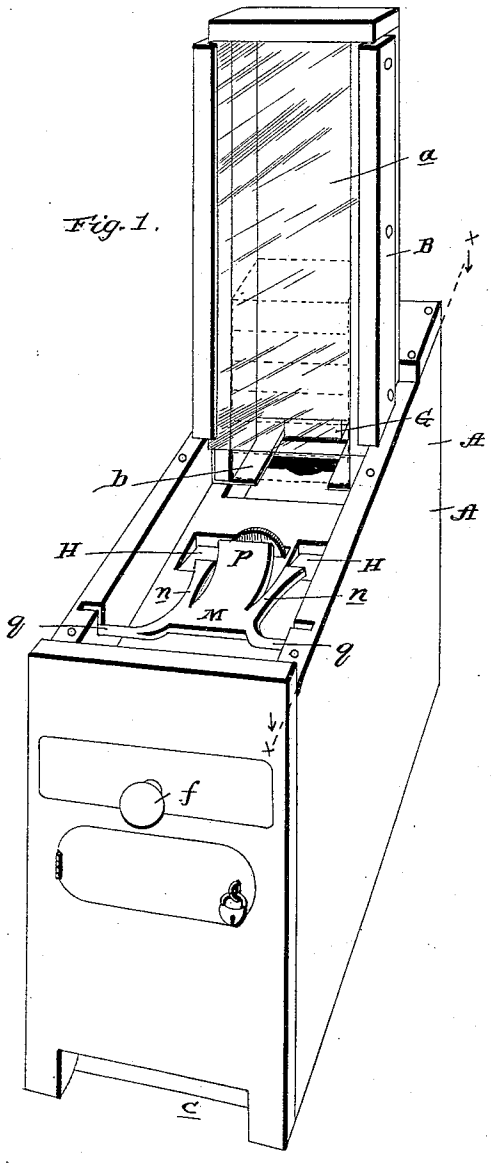
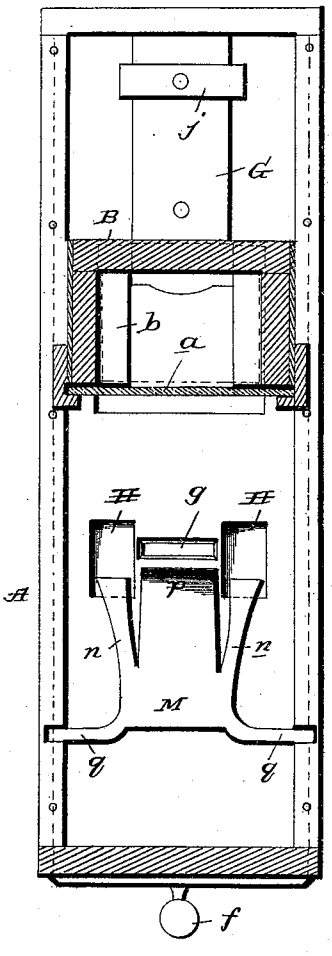


Fig. 2.



Witnesses:
C. H. Raeder
N. F. Matthews.

Inventor
Thomas C. Kirkham
By James J. Sheehy
Attorney

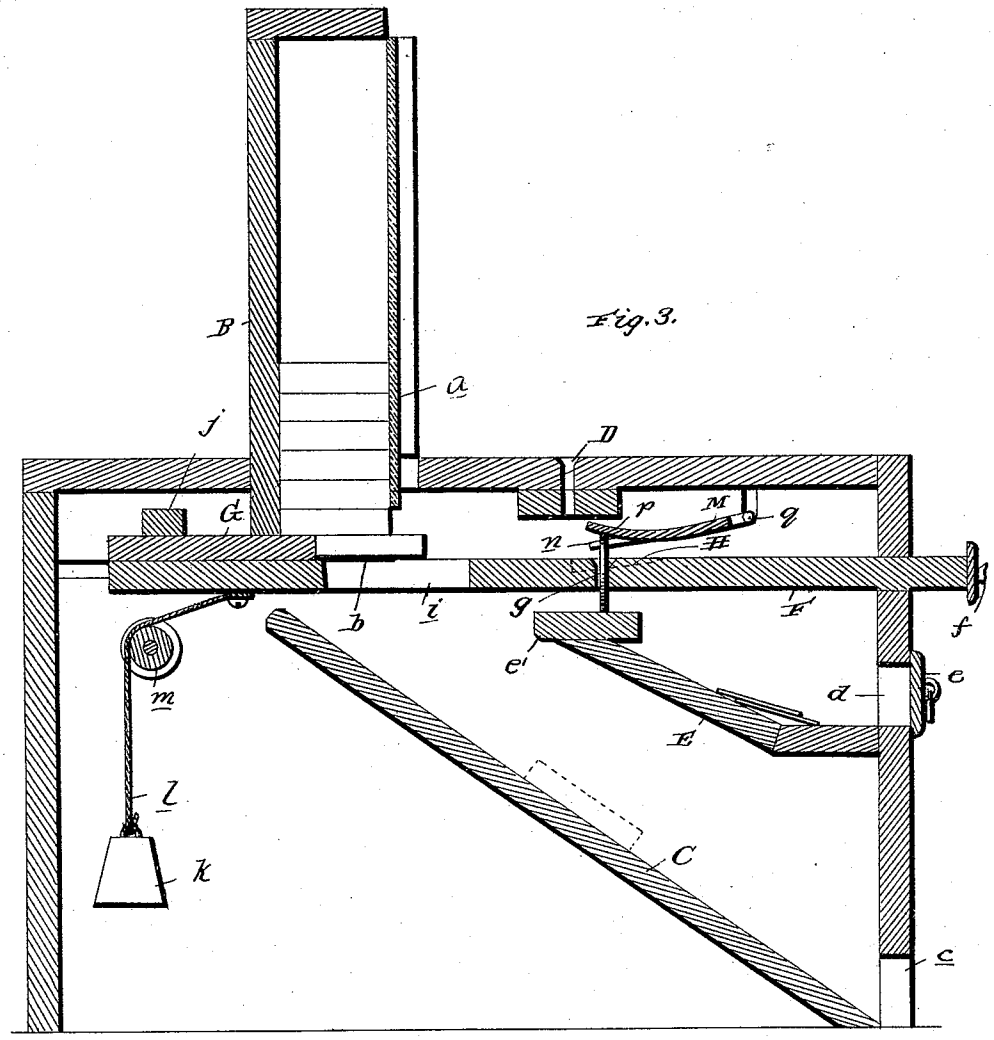
(No Model.) 2 Sheets—Sheet 2.

T. C. KIRKHAM.

VENDING MACHINE.

No. 488,610. Patented Dec. 27, 1892.

Fig. 3.



Witnesses:
C. H. Pauley
W. F. Matthews.

Inventor
Thomas C. Kirkham
By James J. Sheehy
Attorney

UNITED STATES PATENT OFFICE.

THOMAS CURRAN KIRKHAM, OF HIGHLAND CREEK, CANADA.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 488,610, dated December 27, 1892.

Application filed October 14, 1892. Serial No. 448,815. (No model.)

To all whom it may concern:

Be it known that I, THOMAS CURRAN KIRKHAM, a citizen of Canada, residing at Highland Creek, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Vending-Machines; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to improvements in automatic coin operated vending machines, and it has for its general object to provide such a machine, of an exceedingly cheap, simple, and durable construction, and one adapted to be easily operated and which will not be liable to get out of order.

Other objects and advantages will be fully understood from the following description and claims when taken in conjunction with the accompanying drawings in which:

Figure 1, is a perspective view of my improved machine with the front portion of the casing top removed. Fig. 2, is a horizontal section of the same taken in the plane indicated by the line *x*, *x*, of Fig. 1, looking downwardly, and: Fig. 3, is a vertical longitudinal section with the parts in the position they occupy after a coin has been deposited in the slot and the delivery slide has been partly drawn out.

In the said drawings, similar letters designate corresponding parts throughout the several views referring to which:

A, indicates the casing of my improved machine which may be of a general rectangular form as shown, and B, indicates the stacking frame or holder for the articles to be vended, which is preferably provided with a glass front *a*, for the display of such articles. This frame or holder B, which extends down through the top of the casing and has its front and rear walls cut away at its lower end, is provided with two ledges *b*, which are preferably connected to its side walls and are designed to support the stack of the articles and permit the lowermost one to be removed as will be presently described.

C, indicates a delivery way or chute, which leads from a point beneath the frame or holder B, to the delivery opening *c*, in the front wall of the casing, and which is designed to receive the articles as they are displaced from the ledges *b*, and conduct the same to said delivery opening where they are discharged into the hand of the purchaser.

D, indicates the slot in which the coin is deposited to enable the purchaser to operate the machine; and E, indicates a wall which forms the floor pocket or receptacle for the coin after it has performed its function, from which pocket the coins may be removed through the opening *d*, which is normally closed by the locked door *e*.

Mounted in suitable grooves or ways in the side walls of the casing A, and arranged between the ends of the walls C, E, and the top wall of said casing is the longitudinally movable, delivery slide F, which extends through the front wall of the casing and is provided with a knob or handle *f*, whereby it may be readily manipulated. This slide F, is provided upon its upper side adjacent to its rear end with a vertical projection G, which is of a width to enable it to take between the ledges *b*, and is designed and adapted to push the lowermost article off the ledges *b*, when the said article will fall through the opening *i*, with which the slide is also provided, and onto the chute C, before described.

In order to limit the forward movement of the delivery slide, I provide the same with a suitable stop as *j*, which is designed and adapted to engage the frame or holder B, and to effect an automatic return of the said slide to its normal position after operation, I connect a weight *k*, to the rear end thereof through the medium of the cord *l*, which takes over a suitably mounted guide pulley *m*, as shown. It is obvious that in some cases a spring might be used instead of the weight or other suitable devices may be employed for returning the slide.

Formed in the upper side of the slide F, on opposite sides of the slot *g*, are recesses H, which have their bottom walls inclined upwardly toward the outer end of the slide for a purpose presently disclosed. These recesses H, are designed to be engaged by the detents *n*, of the gravitating catch M, to prevent the slide from being drawn out until a coin has

been placed in the slot, and by reason of the bottom walls of the said recesses H, being inclined as described it will be seen that when the slide is pulled outwardly without a coin being deposited in the slot D, the detents will first engage the inclined bottoms of the recesses and then the end walls thereof, whereby the liability of the detents jumping or failing to engage the recesses when the slide is jerked or pulled quickly outward, is obviated.

The gravitating catch M, which may be formed from a single piece of metal, comprises the straight detents *n*, the tongue *p*, and the lateral trunnions *q*, which latter extend from the end of the catch and are journaled in the side walls of the casing, as shown. The free end of the tongue *p*, which is designed to be lifted by the deposited coin to raise the catch and disengage the detents from the recesses, has its free end curved upwardly as shown so as to present a beveled surface to the coin and enable it to ride easily over the coin.

To operate my improved machine, a coin is deposited in the slot D, when it will take through the slot *g*, of the delivery slide and will rest upon the platform *e'*, with which the wall E, is provided; the said platform *e'*, being arranged such a distance from the delivery slide that the coin when resting on the platform will extend above the upper side of the slide. The said slide is then drawn outwardly, when the coin will engage the tongue of the gravitating catch and will lift the same so as to disengage it from the slide, which may be then drawn out sufficiently to displace the article on the ledges *b*. As the delivery slide is drawn out to the extent of its adjustment, it will be seen that coin will be carried past the platform *e'*, and will be deposited in the pocket formed by the wall E.

If desirable in the practice of my invention, the slide, the catch, the delivery chute and the pocket or receptacle for receiving the deposited coins, may be arranged in a suitable metallic frame designed to be placed within a casing having a stacking frame or holder such as described.

It is obvious that when a machine of large capacity and one adapted to vend various articles, is desired, several of the delivery slides, catches and stacking frames, together with a delivery chute or chutes, may be employed in a single frame or casing, and may be separated by suitable partitions so as to operate as independent machines.

It will be seen from the foregoing description that I have provided a vending machine that is not only very cheap and simple, but one that is prompt in its actions and which is not liable to get out of order.

In order to impart a thorough understanding of my invention, I have specifically described the construction and relative arrangement of the several elements thereof, but I do not desire to be understood as confining myself to the same, as such changes or modifications may be made as fairly fall within the scope of my invention.

Having described my invention what I claim is:—

1. In a vending machine, substantially as described, the combination with a frame or casing, a stacking frame or holder extending down into the casing and having the ledges *b*, at its lower end, and the inclined chute leading from a point beneath the frame or holder to a delivery opening; of the delivery slide having the projection G, on its upper side and also having the opening *i*, in advance of said projection, substantially as and for the purpose set forth.

2. In a vending machine, substantially as described, the combination with a frame or casing, the delivery slide having the recesses in its upper side provided with inclined bottoms and also having the slot to receive a coin, and a suitable means for supporting the coin in said slot; of the gravitating catch formed from a single piece of material and comprising the lateral trunnions journaled in the side walls of the casing, the straight detents, and the tongue having its free end curved upwardly, substantially as and for the purpose set forth.

3. In a vending machine, substantially as described, the combination with a frame or casing, the stacking frame or holder extending down into the casing and having the ledges *b*, at its lower end, the inclined chute extending from a point below the stacking frame or holder to a discharge opening, and the wall E, serving to form a pocket and having the platform on its upper edge; of the delivery slide having the opening *i*, and the slot to receive the coin and also having the projection G, and the gravitating catch adapted to engage the delivery slide and be engaged by the coin, substantially as and for the purpose set forth.

4. In a vending machine, substantially as described, the combination with a frame or casing, having a delivery chute; of a delivery slide slotted to receive a coin, a support beneath the slide for said coin, said slide having a stop on its under side, and the gravitating catch formed from a single piece of material and comprising the lateral trunnions, journaled in the side walls of the casing, a detent for engaging the stop on the slide, and the tongue having its free end curved upwardly, and adapted to be lifted by a coin, substantially as specified.

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

THOMAS CURRAN KIRKHAM.

Witnesses:
JAMES LOWREY,
FELIX TANE.