

No. 762,909.

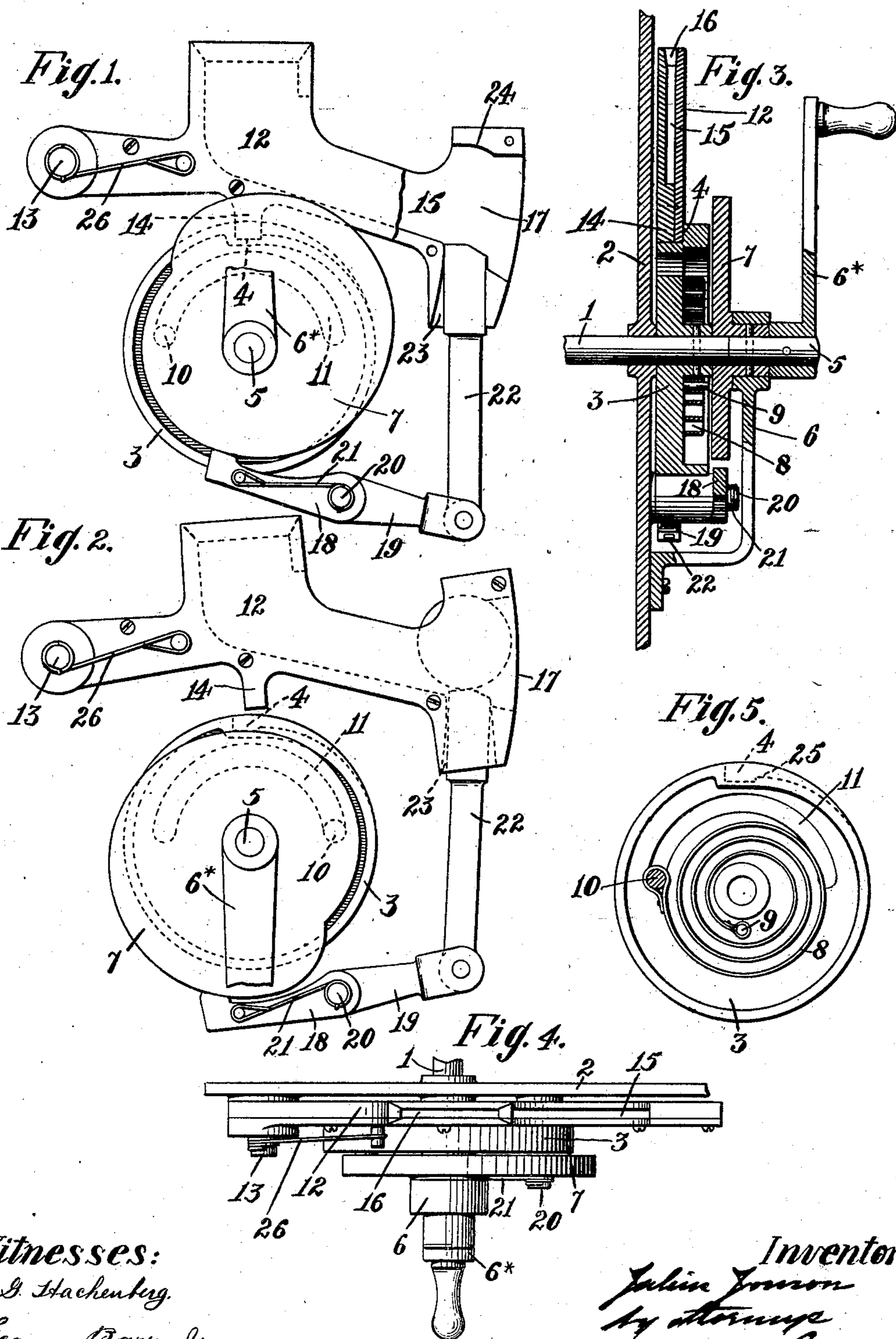
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J. JONSON.

COIN OPERATED MECHANISM FOR VENDING MACHINES.

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NO MODEL.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JULIUS JONSON, OF NEW YORK, N. Y.

## COIN-OPERATED MECHANISM FOR VENDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 762,909, dated June 21, 1904.

Application filed September 9, 1903. Serial No. 172,480. (No model.)

*To all whom it may concern:*

Be it known that I, JULIUS JONSON, a citizen of the United States, and a resident of the borough of Manhattan, in the city and State of New York, have invented a new and useful Improvement in Coin-Operated Mechanism for Vending-Machines, of which the following is a specification.

My invention relates to an improvement in coin-operated mechanism for vending-machines, and has for its object to provide certain improvements in the construction, form, and arrangement of the several parts whereby a very simple and complete mechanism is constructed.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a view of the coin-operated mechanism in side elevation, the parts being shown in their normal position and a portion of the handle and the rocking coin-receiver being broken away. Fig. 2 is a view in side elevation of the mechanism, showing the parts in the position which they assume when the coin has been used for raising the coin-receiver out of its locking engagement with the main-shaft cam. Fig. 3 is a transverse vertical section through the mechanism in the line of the shaft. Fig. 4 is a top plan view of the mechanism with the parts in their normal position; and Fig. 5 is a face view of the main-shaft cam, the spring for yieldingly connecting the cam and the handle-shaft cam being shown in its normal position.

The main shaft of the mechanism is denoted by 1, and it may be connected to any suitable vending mechanism. (Not shown herein.) This shaft is mounted in suitable bearings in the wall 2 of a suitable support. A surface-cam 3 is fixed to the shaft 1, the periphery of which cam is concentric with the shaft for a greater portion of its circumference, and is then brought inwardly to form an abrupt-faced notch 4. A crank-handle shaft 5 is mounted in suitable bearings in a bracket 6, secured to the support 2, which shaft is in alinement with the shaft 1. This shaft 5 is provided with a suitable operating crank-handle 6 for the use of the operator.

The shaft 5 is further provided with a surface-cam 7, fixed thereto. A coil-spring 8 is housed within the main-shaft cam 3 and has one end attached to a pin 9, projecting from the face of the cam 3, and its other end attached to a pin 10, projecting from the face of the cam 7. This pin 10 of the cam 7 is fitted to travel around within a groove 11 in the cam 3, which groove is concentric with the shaft 1 and extends about half-way around the same.

The periphery of the cam 7 presents a curve having a gradually-increasing radius around the shaft to a point adjacent to where it started and is then brought rapidly down to the said point.

A rocking coin-receiver 12 is hinged at 13 to the support 2, so as to swing vertically, which coin-receiver is provided with a lug or projection 14, arranged in position to rest upon the periphery of the cam 3 of the main shaft 1.

When the parts are in their normal position, the lug or projection 14 is located within the notch 4. This coin-receiver 12 is provided with a coin-slot 15, the mouth 16 of which is arranged to receive the coin from any suitable point. The coin of the predetermined value is temporarily held at the delivery end 17 of the slot 15 in the receiver by the following mechanism: A two-armed rocking lever 18 19 is hinged at 20 to the support 2, the arm 18 of the lever being held in engagement with the periphery of the operating-handle cam 7 by means of a spring 21, having one end engaged with the said arm and the other end engaged with the stud 20.

The arm 19 is provided with a coin-engaging bar 22, the free end of which projects through a suitable slot 23 in the coin-receiver 12 into the interior of the coin-slot 15 therein adjacent to its delivery end 17.

When the parts are in their normal position, the free end of the bar 22 projects into the interior of the coin-slot 15 in the coin-receiver a sufficient distance to prevent the passage of the coin therethrough.

The operation of the device is as follows: A coin of the prescribed size is dropped into the coin-slot 15 in the coin-receiver and will

travel along the said slot until it is stopped by the coin-engaging bar 22. The top of the slot 15 above the coin-engaging bar may be cut away, as shown at 24, to form a seat for the top of the coin when its lower edge engages the bar 22, if so desired. The handle 6 is then turned to the right, thus turning the cam 7 and causing the pin 10 to travel along within the slot 11 in the cam 3. As the handle is turned the cam 7 will depress the arm 18 of the two-armed lever connected to the bar 22, thus raising the arm 19 and the bar 22, and because of the engagement of the bar with the coin the receiver 12 will be moved upward. This upward movement of the receiver 12 will release the lug or projection 14 from its engagement with the notch 4 in the cam 3, so that when the pin 10, carried by the cam 7, reaches the end of the slot 11 in the cam 3 the further movement of the pin, caused by the continued movement of the handle 6, will rotate the cam 3, and thereby the vending-machine shaft 1. As the movement of the handle 6 is continued the cam 7 will permit the bar 22 to be lowered while the lug 14 of the coin-receiver is traveling along the concentric portion of the cam 3, thereby releasing the coin from its engagement with the bar 22 and permitting the coin to drop from the coin-receiver from the discharge-opening 17. As the handle 6 completes its rotary movement the lug 14 will travel along the surface of the cam 3 into its original position within the notch 4. If the handle be then released, the spring 8 will return it and the cam 7 to their normal positions.

To prevent the lug 14 from being unintentionally released from the notch 4 in the cam 3, the rear wall of the said notch is preferably provided with a slight shoulder 25.

To prevent the coin-receiver from being accidentally raised out of its locking engagement with the main-shaft cam 3 by the upward movement of the coin-engaging bar 22, I preferably provide a spring 26, one end of which is engaged with the stud 13 and the other end with the said coin-receiver, the spring tending to hold the coin-receiver under a considerable tension at the limit of its downward movement.

The coin-operated device, constructed, arranged, and operated as herein set forth, is extremely simple and is one which is not liable to get out of order, and it may be utilized in connection with vending-machines of various kinds.

It is evident that changes might be resorted to in the form, construction, and arrangement of the several parts without departing from

the spirit and scope of my invention. Hence I do not wish to limit myself strictly to the structure herein set forth; but

What I claim is—

1. A coin-operated mechanism comprising a main-shaft cam, a movable coin-receiver engaged therewith, a handle-shaft cam, a coin-engaging bar operated thereby and arranged in connection with a coin to disengage the coin-receiver from the main-shaft cam.

2. A coin-operated mechanism comprising a main-shaft cam, a movable coin-receiver engaged therewith, a handle-shaft cam having a pin-and-slot connection with the main-shaft cam and means under the control of a coin for releasing the coin-receiver from the main-shaft cam as the handle-shaft cam is rotated.

3. A coin-operated mechanism comprising a main-shaft cam, a movable coin-receiver engaged therewith, a handle-shaft cam having a lost-motion connection with the main-shaft cam and means under the control of a coin for releasing the coin-receiver from the main-shaft cam as the handle-shaft cam is rotated.

4. A coin-operated mechanism comprising a main-shaft cam, a handle-shaft cam, a spring engaging the two cams, means for locking the main-shaft cam, means under the control of a coin for releasing the main-shaft cam when the handle-shaft cam is rotated and means for connecting the two cams to move together.

5. A coin-operated mechanism comprising a main-shaft cam, a movable coin-receiver arranged to lock the main-shaft cam against movement, a handle-shaft cam and a coin-engaging bar under the control of a coin within the coin-receiver for releasing the main-shaft cam from the coin-receiver when the operating-cam is rotated.

6. A coin-operated mechanism comprising a main-shaft cam, a handle-shaft cam, a movable coin-receiver for locking the main-shaft cam against movement, a coin-engaging bar operated by the handle-shaft cam, the coin-receiver and the coin-engaging bar being arranged to be locked together by a coin whereby the rotary movement of the handle-shaft cam will release the coin-receiver from its engagement with the main-shaft cam and means for connecting the main-shaft cam and handle-shaft cam to move together.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 4th day of September, 1903.

JULIUS JONSON.

Witnesses:

FREDK. HAYNES,  
HENRY THIEME.