

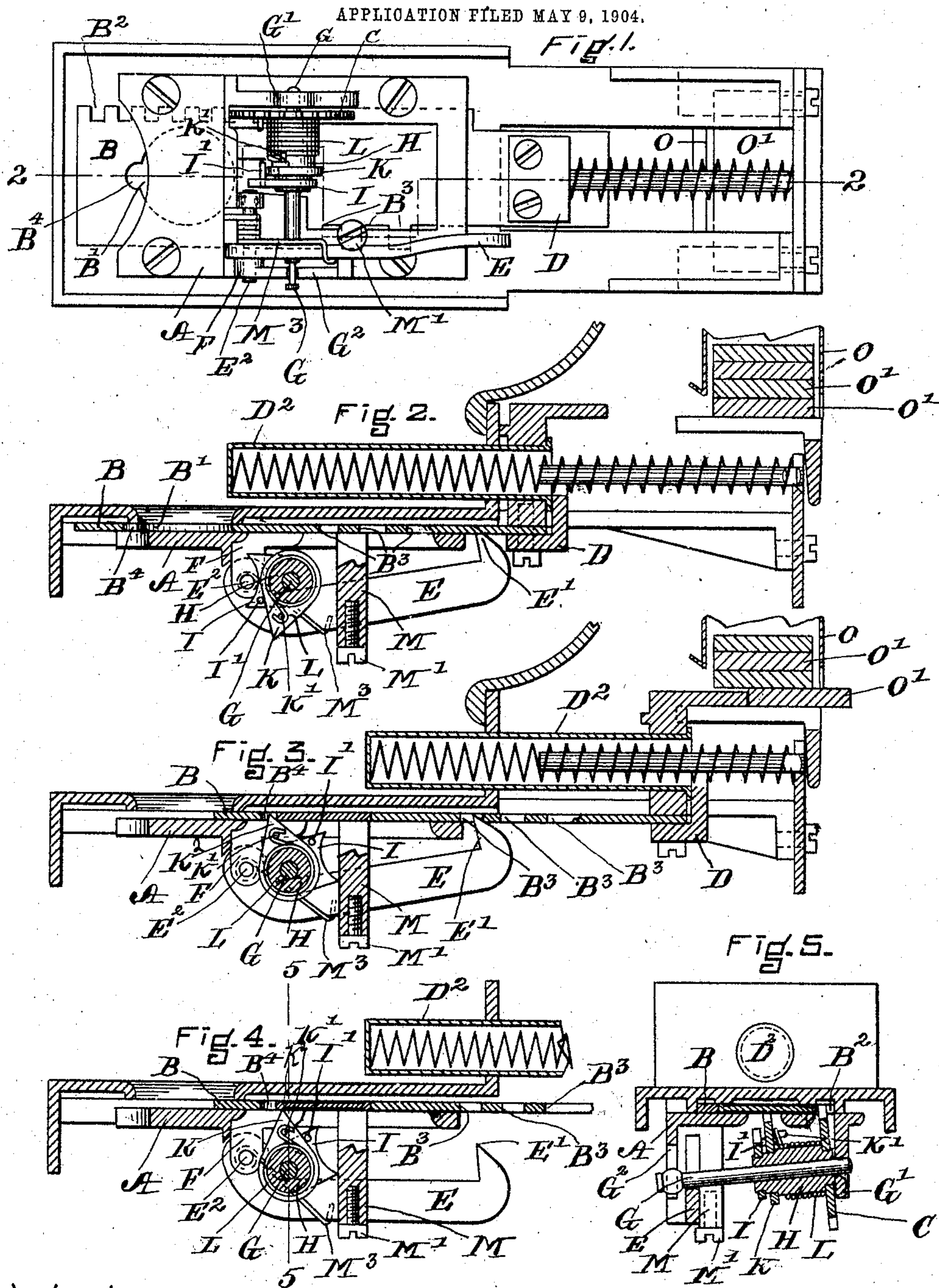
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A. D. GROVER.

COIN CONTROLLED VENDING MACHINE AND FRAUD PREVENTING DEVICE
FOR SAME.

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WITNESSES.

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COIN-CONTROLLED VENDING-MACHINE AND FRAUD-PREVENTING DEVICE FOR SAME.

SPECIFICATION forming part of Letters Patent No. 780,717, dated January 24, 1905.

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To all whom it may concern:

Be it known that I, ALBERT D. GROVER, a citizen of the United States, residing in Malden, county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Coin-Controlled Vending-Machines and Fraud-Preventing Devices for Same, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to provide a mechanism operated through the medium of a coin the coin-slot of which will automatically lock itself when an attempt is made to operate it by means other than a coin of the proper denomination.

Another object of my invention is to obviate the defects in vending-machines as heretofore constructed, which defects result in the fraudulent removal of goods by tokens other than coins of the proper denomination.

I attain the objects set forth by the mechanism shown and described in the drawings which accompany this specification.

In the drawings, Figure 1 represents an inverted plan view of a coin-slide and the coin-testing and locking mechanism attached thereto. Fig. 2 is a sectional elevation through line 2 2, Fig. 1, showing the mechanism in position to receive a coin. Fig. 3 is a sectional elevation through line 2 2, showing a false token in the coin-hole and the slide partially pushed in and in position to lock it against further inward movement. Fig. 4 is a partial sectional elevation through line 2 2, Fig. 1, showing a proper coin in the coin-opening, the locking device unlocked, and the slide pushed inwardly to a point where it will eject the goods. Fig. 5 is a sectional elevation through the line 5 5, Fig. 4.

In the drawings, A represents the support for the coin-slide.

B is the coin-slide, having therein an opening B' of a proper size to receive a coin of the proper denomination to operate the unlocking device of a vending-machine. The coin-slide B has notches B² on one of its sides and locking projections B³ B³ on its other side. The notches B² are adapted to receive the cogs

of the pinion C and rotate it when the coin-slide B is moved in or out.

Attached to the coin-slide B is a bracket D, which has attached to it a plunger D² in such manner that when the plunger D² is pressed inwardly or to the right it will carry the coin-slide B along with it, thereby rotating the wheel C and causing the projections B³ to travel in a line over the point E' of a hook E. The hook E is attached by a pivot E² to a lug F, formed upon the coin-slide support A. The hook E is normally in contact with a shaft G, which is mounted at one of its ends in a bracket G', attached to the coin-slide support A, its other end sliding in a slot in a bracket G². The shaft G has mounted upon it the sleeve H, to one end of which is secured the pinion C and upon the other end the coin-testing segments I and K. The coin-testing segment I is securely fastened to the sleeve H to rotate therewith and has secured in its inner face a pin I', located so that the extending point of the testing-segment K will contact with it, as shown in Fig. 2. The coin-testing segment K is loosely mounted upon the sleeve H in such manner as to revolve easily thereon, its movement in one direction being limited by the pin I' and controlled in the other direction by the spring L. It has a pin K' secured in its inner face, projecting therefrom sufficiently to receive the hooked end of the spring L, the other end of said spring L being secured to the pinion C. Said spring L holds the segment K normally in contact with the pin I', but permits it to rotate in an opposite direction.

M is a post projecting downwardly from the slide-support A and has a slot in it of a width sufficient to receive the locking-hook E. It also has a philister-head screw M', which head projects over the slot sufficiently to prevent the hook E from flying downwardly out of the slot.

M³ is a spring normally holding the hook upwardly in the position shown in Fig. 3 and in path of the projections B³ B³.

B⁴ is an opening in one side of the coin-hole B', adapted to receive the point K² of the testing-segment K when a false token is placed

in said coin-opening and the slide moved inward, as shown in Fig. 3, to permit the lever E to move upwardly until the point E' is in the path of one of the projections B³ in order to lock the coin-slide against further inward movement to prevent the removal of a package of the goods through the medium of a false token.

O represent a portion of a goods-receptacle, and O' O' represent packages of goods placed therein.

In Fig. 3 a false token is represented as being in the coin-opening in the coin-slide, the coin-slide moved forward until the point E' is in position to lock it, and a package of the goods O' partially shoved out, but not out far enough to allow the operator to procure it.

The testing action of the segment K is as follows: When a false token is inserted in the coin-hole B' and the slide B moved inwardly, the testing-segment K is revolved until the point K² contacts with said token. If the surface of the token is smooth, or comparatively so, the said point K² will slide upon it until it passes off the edge into the opening B⁴. This allows the shaft G to move upwardly to its normal position and the point E' of the hook E to catch on one of the projections B³ and lock the slide B against further inward movement. If the proper token or coin is placed in the coin-hole B' and the slide B moved inwardly, the point K² will catch upon the raised edge of the coin, as shown in Fig. 4, thereby revolving the testing-finger K, causing it to press the hook E downwardly until the point E' is out of the path of the projections B³, thereby allowing further inward movement of the slide B to eject the goods.

The principle of my fraud-preventing device is to provide means to unlock the slide through the medium of the raised milled edge of a coin. The form and location of the means may be changed without departing from the spirit of my invention, provided the milled edge of the coin is used in conjunction with the testing-segment to unlock the coin-slide to permit it to move inwardly to eject the goods.

Having described my invention, what I claim is—

1. In a fraud-preventing device for coin-operated machines, a coin-receiving slide; a spring-controlled segment provided with a point adapted to contact with the flat surface of a coin as the slide is pushed in; and means whereby the contact of the point of the segment with the milled edge of a coin will unlock the slide and permit its free longitudinal movement.

2. In a coin-operated machine, a fraud-preventing device, comprising a coin-receiving slide provided with a coin-hole; a notch in one

side of the coin-hole; a shaft supported adjacent the coin-slide; means for revolving said shaft; a sleeve mounted on said shaft; a testing-finger loosely mounted upon said sleeve; means for controlling the movement of said testing-finger and to permit it to revolve on said sleeve; a spring-pressed locking-hook mounted adjacent said shaft and bearing thereon; and means whereby said testing-finger will cause said spring-pressed hook to lock said slide when a token other than a coin of the proper denomination is inserted in the coin-hole.

3. In a coin-controlled apparatus, a fraud-preventing device, comprising a spring-controlled segment revolubly mounted on a sleeve, having a single-pointed projection adapted to contact with the under side of a coin placed in the coin-hole in a coin-slide; said coin-slide; means whereby the coin-slide will be locked against inward movement when a token not provided with a milled edge is placed in the coin-hole; said coin-hole; and a notch in the edge thereof.

4. In a coin-operated apparatus having a fraud-preventing device, a coin-receiving slide; a coin-opening therein, and an opening running into and adjacent said coin-opening; a spring-pressed segment mounted in the path of said coin-opening provided with a projection adapted to contact with the under side of the coin as the slide is pushed in, said spring-pressed segment being so arranged as to slide upon a comparatively smooth surface, but to catch upon a milled edge of a coin of the proper denomination to permit the slide to be moved freely longitudinally to the full extent of its normal movement.

5. In a fraud-preventing device for coin-controlled machines, a coin-slide therein normally locked; means for unlocking said coin-slide to permit inward movement operated by contact of said means with the projecting milled edge of a coin of the proper denomination.

6. In a fraud-preventing device for coin-controlled machines, a coin-slide; a coin-hole in said coin-slide adapted to receive a coin, said coin-slide being normally locked against inward movement; a spring-controlled means adapted to release the locking mechanism when a coin of proper denomination having a milled edge is placed in the coin-slide and same moved inward to its operative position.

In testimony whereof I have hereunto set my hand, in the presence of two subscribing witnesses, this 5th day of May, A. D. 1904.

ALBERT D. GROVER.

Witnesses:

H. M. KELSO,
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