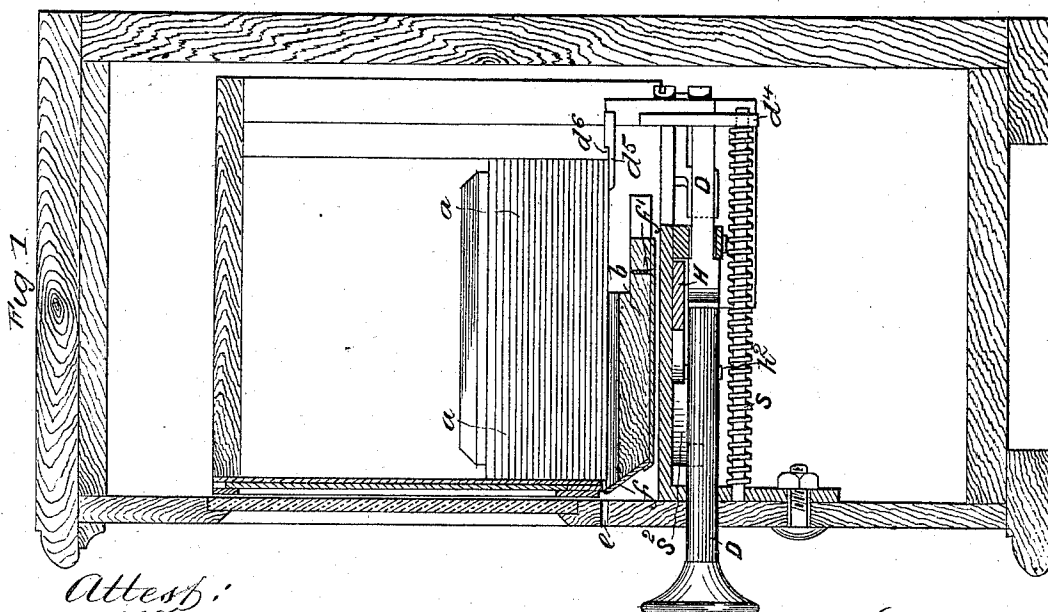
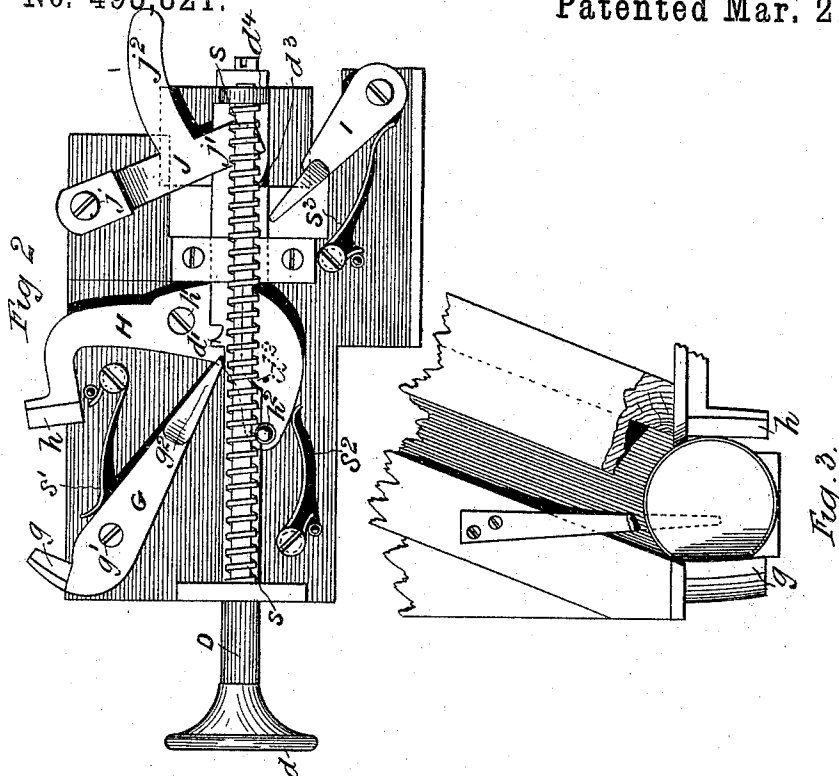


(No Model.)

J. G. CUMMING.
COIN FREED MACHINE.

No. 493,821.

Patented Mar. 21, 1893.



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UNITED STATES PATENT OFFICE.

JAMES GILBERT CUMMING, OF EDINBURGH, SCOTLAND.

COIN-FREED MACHINE.

SPECIFICATION forming part of Letters Patent No. 493,821, dated March 21, 1893.

Application filed June 2, 1892. Serial No. 435,274. (No model.) Patented in England July 4, 1890, No. 10,369; in France April 9, 1891, No. 212,656, and in Belgium April 10, 1891, No. 94,465.

To all whom it may concern:

Be it known that I, JAMES GILBERT CUMMING, engineer, of Merchiston Bank Terrace, Edinburgh, in the county of Mid-Lothian, Scotland, have invented Improvements in Coin-Freed Machines, (for which Letters Patent have been obtained in Great Britain, No. 10,369, dated July 4, 1890; in France, No. 212,656, dated April 9, 1891, and in Belgium, No. 94,465, dated April 10, 1891,) of which the following is a specification.

My invention has for its object to provide an improved apparatus which, after a suitable determined coin has been inserted in an opening provided for the purpose, is enabled to be unlocked or released. The apparatus works in combination with the mechanism contained in a coin freed machine while after each operation and the whole apparatus has been returned to its original position it is ready to be again operated after another coin has been inserted. When a coin has been inserted in the opening provided it rolls or falls down an inclined chute which guides it between two levers. These levers are pivoted and work in combination with a bolt, drawer, or other suitable mechanical arrangement.

In the drawings, Figure 1 is a vertical section taken through the middle of the box containing the cards or other articles, and the mechanism for delivering the article. Fig. 2 is an underneath plan view showing the mechanism. Fig. 3 is an enlarged detail representation of the coin chute and operating levers.

The cards or other articles for sale are shown at *a, a* in the box, (Fig. 1.) They are partly supported on a grooved wooden bottom *b* of the box, and partly on a piece of metal *d⁵*, which is connected by means of the piece *d⁴* to, and moves with, the slide or bolt *D*. On the metal arm *d⁵* a shoulder *d⁶* is formed, which when the handle *d* of the slide or bolt *D* is pulled out, catches the bottom card and pushes it through the slit *e* in the box. In order to prevent anything being pushed into the box through the slit in front, through which the card is pushed as aforesaid, a springy piece of metal *f* attached at one end *f'* to the bottom of the box, and turned up at the other end so as to cover the slit, is provided. The card as it comes out pushes the springy

piece of metal away from the slit, and when the card is removed the metal springs back and covers the slit again.

The mechanism for actuating the machine will be understood by reference to Fig. 2. The coin is put into a slit provided in the front of the box and falls through a chute on to the jaws *g* and *h* of the lever or pawl *G* and lever *H*, where it is held and forms a solid connection between the jaws, as shown at Fig. 3. The lever or pawl *G* is pivoted at *g'*, and the end *g²* is pressed against the slide or bolt *D* by the spring *s'*. The other lever *H* is pivoted at *h'*, and has a pin *h²* attached to it, which is pressed into a hollow formed in the slide or bolt *D* by the spring *s²*. When there is no coin connecting *g* and *h* the handle *d* can only be pulled out until the toothed rack or projection *d'* comes in contact with the end *g²* of the lever or pawl *G*. This motion is sufficient to take the pin *h²* out of the hollow in the slide and turn the jaw *h* a little nearer the jaw *g*, but is not enough to bring the projection *d'* on the metal piece *d⁵* up to the card. When, however, the coin is dropped down the chute and is caught between the jaws *g* and *h*, a solid connection is formed between *g* and *h*. If now the handle *d* is pulled out, as the pin *h²* comes out of the hollow in the slide the lever *H* is partly turned on its pivot *h'*. The motion of *h* transmits through the coin a pressure to *g*, and the lever or pawl *G* turns partly round the pivot *g'*. Thus the end *g²* lifts and clears the toothed rack or projection *d'*, and the handle *d* is free and can be pulled out carrying the slide and metal piece *d⁵* with it. The projection *d⁶* pushes the lowest card through the slit. The slide or bolt *D* is recessed or cut away as shown in dotted lines at *d²*. When this part is brought along to the pin *h²* the pin is forced into the recess or hollow, and the jaw *h* separates from the jaw *g* and allows the coin to fall down into a receptacle provided for the purpose. The pawl *I* having a spring *s³* pressing it against the slide or bolt, is provided to prevent the slide going back before the card has been delivered through the slot *e*. The notch *d³* comes up to the end of the pawl just before the coin is released from the jaws, and thus the slide is prevented returning until it has been pulled

out to the full extent. In order to prevent the pawl I catching in the notch d^3 when the slide is returning to its normal position after having delivered the card a metal piece J is pivoted at j . The end j' of this piece is drawn along by the end piece d^4 of the slide or bolt and lifts the end of the pawl I from the slide or bolt. After the notch has passed the pawl in the return of the slide, the end j' of the piece J is knocked away from the pawl by the end of the slide or bolt striking the arm j^2 which is attached to J. As the slide is pulled out it compresses the spiral spring S, and after the card has been delivered the spring forces the slide back to its normal position.

I claim—

1. In a coin-freed apparatus, the combination of a suitable receptacle for holding articles to be delivered, a slide adapted to deliver the articles one by one, a spring lever G adapted to engage the slide for preventing its withdrawal, a spring lever H adapted to be rocked on its pivot by the movement of the slide, and suitable jaws on said levers adapted to receive and hold a coin, whereby the lever G will be rocked on its pivot and disengaged from the slide by the movement imparted to the lever H from the slide, substantially as set forth.

2. In a coin-freed apparatus, the combination of a suitable receptacle for holding articles to be delivered, a slide adapted to deliver the articles one by one and formed with a projection on one side and a depression on the opposite side, a spring lever G adapted to engage the projection for preventing the withdrawal of the slide, and a spring lever H having its end resting in the depression in the slide and adapted to be rocked on its pivot thereby, both of said levers G and H being formed with jaws adapted to receive and hold a coin, whereby the lever G will be moved by the lever H and disengaged from the projection on the slide, substantially as set forth.

3. In a coin-freed apparatus, the combination of a receptacle for holding articles to be delivered, the grooved bottom b , for supporting the articles, the slide D carrying the arm d^5 formed with the shoulder d^6 , a spring lever G adapted to engage the slide and prevent its withdrawal, a spring lever H adapted to be rocked by the movement of the slide and move the lever G out of engagement therewith when a suitable coin is placed between the two levers, substantially as set forth.

4. In a coin-freed machine, the combination of a suitable receptacle for holding articles

to be delivered, a slide adapted to deliver said articles one by one and formed with a suitable projection and depressions on its sides, a spring lever G adapted to engage the projection on the slide for preventing its withdrawal and formed with a coin jaw, a lever H adapted to engage in one of the depressions and also formed with a coin-jaw, said coin-jaws being suitably arranged to receive and hold a coin so that the lever G can be disengaged from the slide by the movement of the lever H on its pivot, a spring pawl adapted to prevent the return of the draw until it has completed its outward movement, and means for disengaging the pawl at the completion of the outward movement of the slide, substantially as set forth.

5. In a coin-freed apparatus, the combination of a suitable receptacle for holding articles to be delivered, a slide adapted to deliver the articles one by one and formed with a projection and depressions in its sides, a spring lever G adapted to engage the projection, a spring lever H normally engaging in one of the depressions, and jaws formed on the levers G and H adapted to receive and hold a coin, whereby the lever G will be disengaged from the slide by the movement of the lever H when forced out of the depression by the movement of the slide, and the coin will be dropped and the lever G allowed to rest on the slide in readiness to re-engage the projection when the lever H springs into the second depression, substantially as set forth.

6. In a coin freed machine, the combination of a suitable receptacle for holding the articles to be delivered a slide adapted to deliver the articles one by one, a spring lever G adapted to engage and prevent the withdrawal of the slide, a spring lever H actuated by the slide adapted to disengage the lever G therefrom, a spring pawl adapted to engage the slide for preventing its backward movement, a pivoted arm adapted to come in contact with the spring pawl and disengage it from the slide, and an arm carried by the slide adapted to actuate the pivoted arm, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

JAMES GILBERT CUMMING.

Witnesses:

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