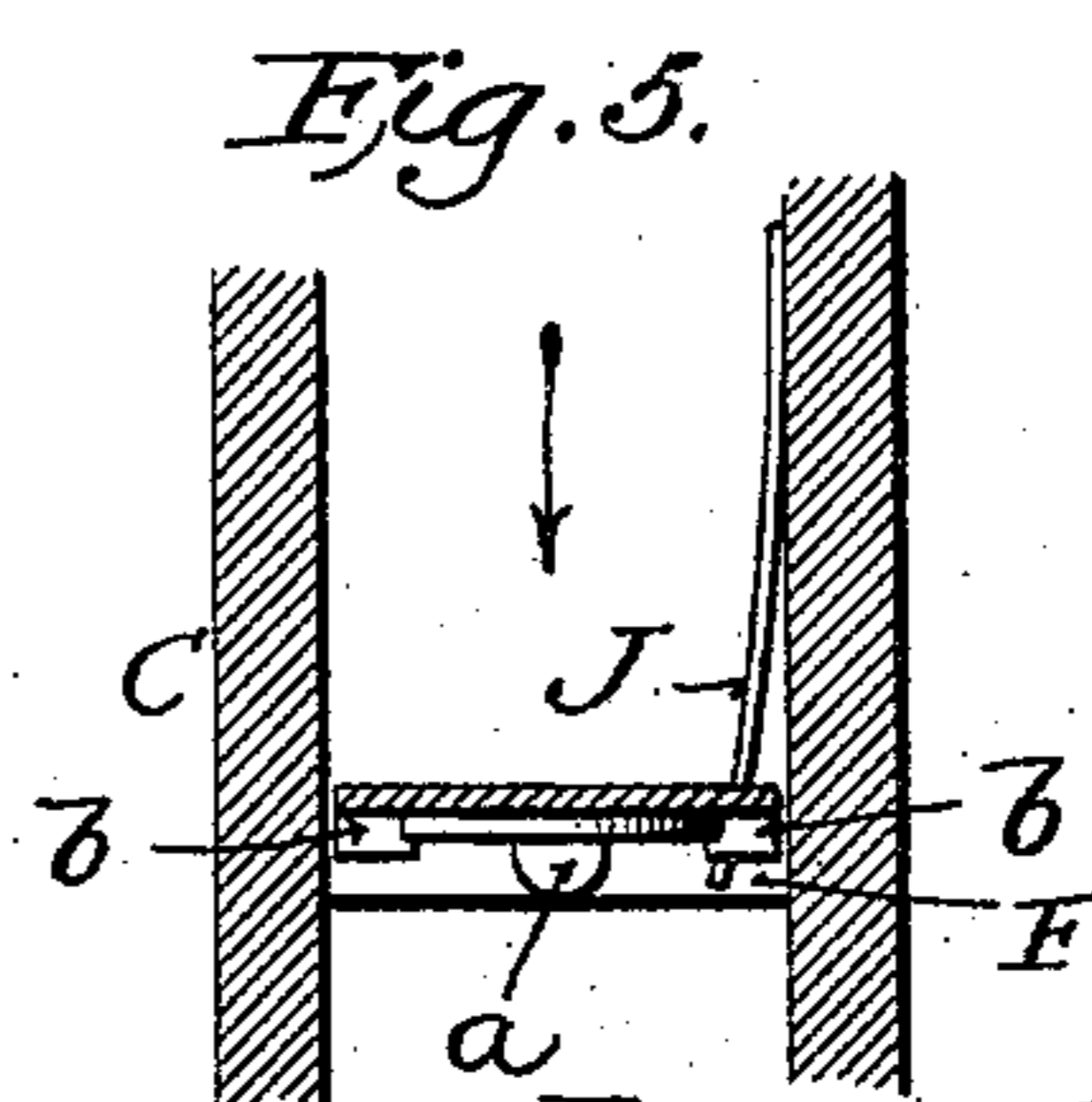
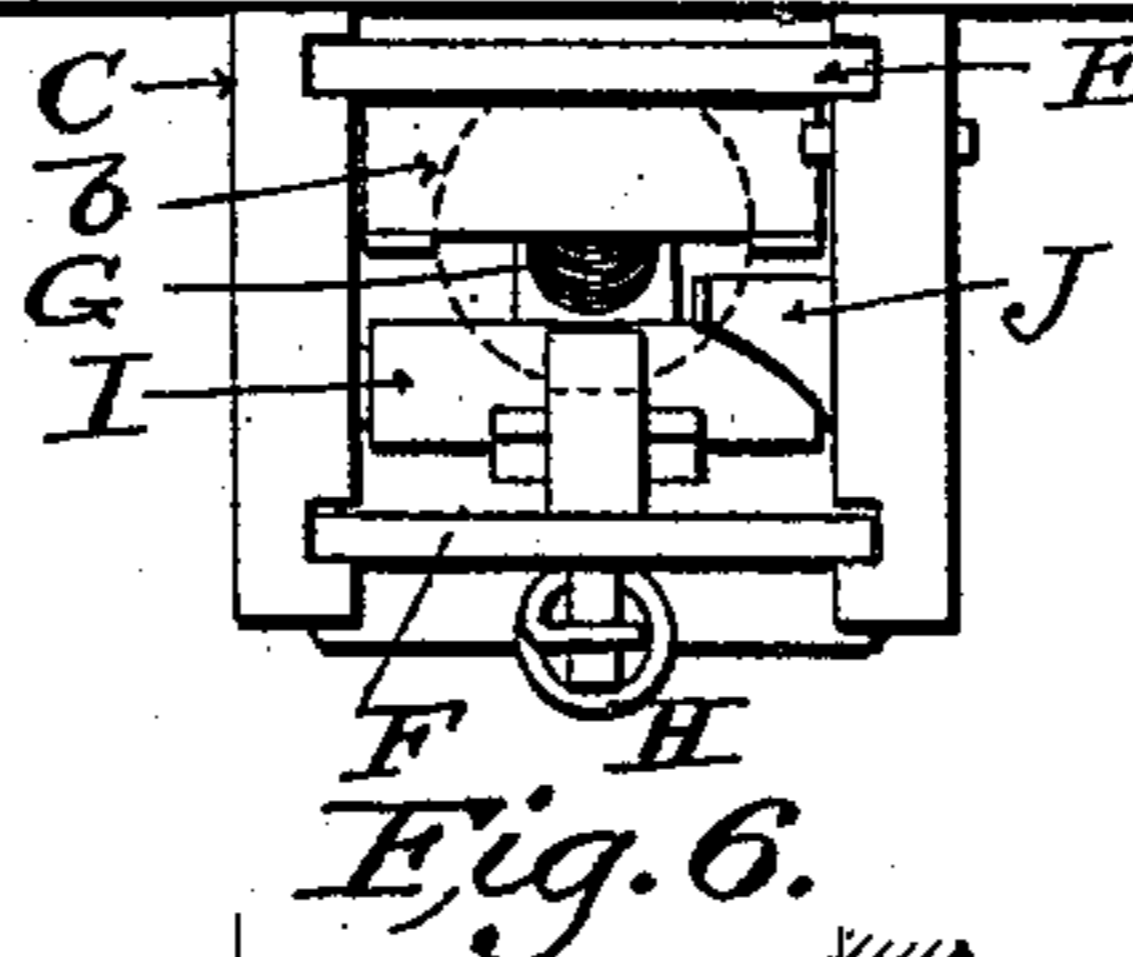
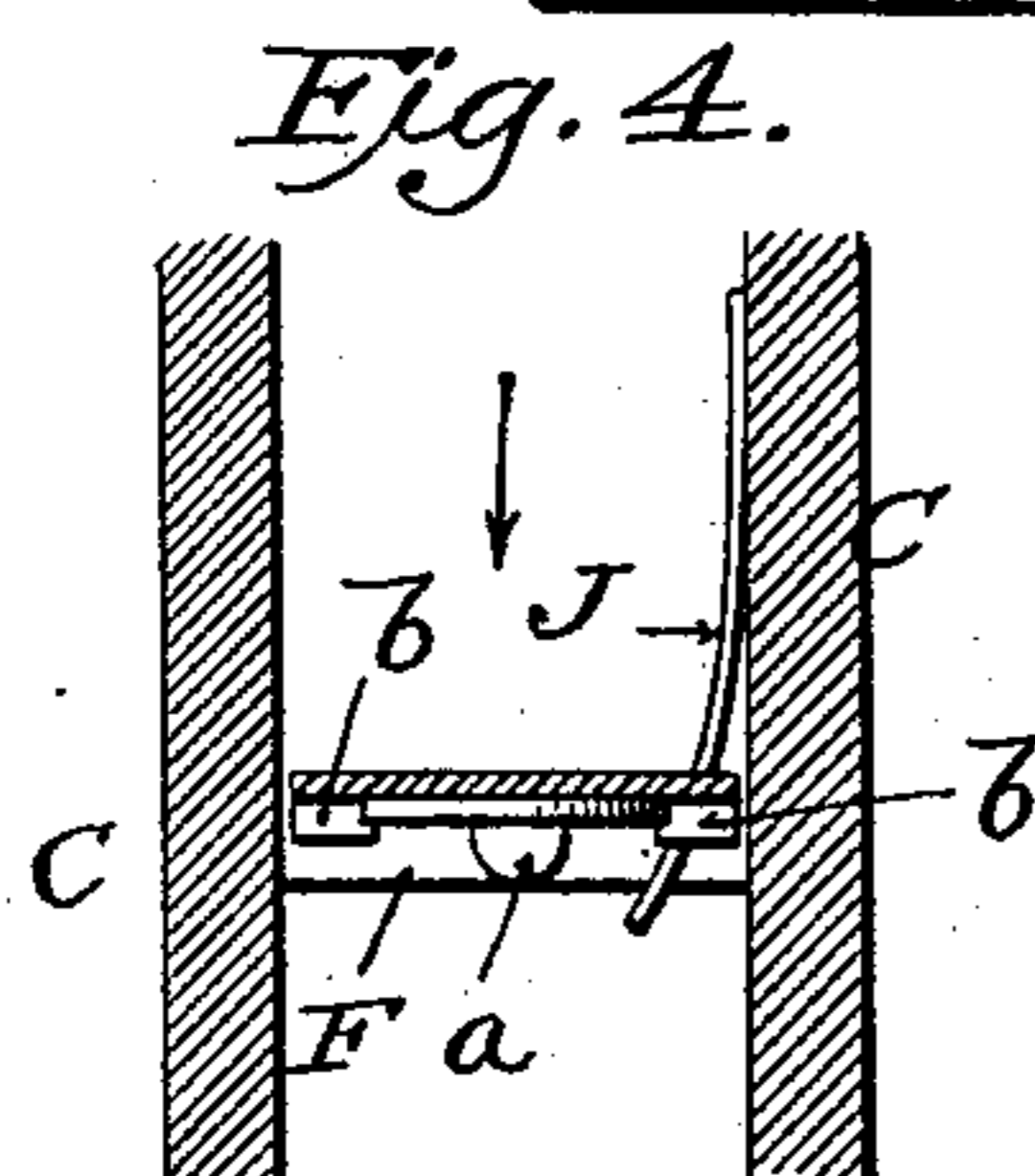
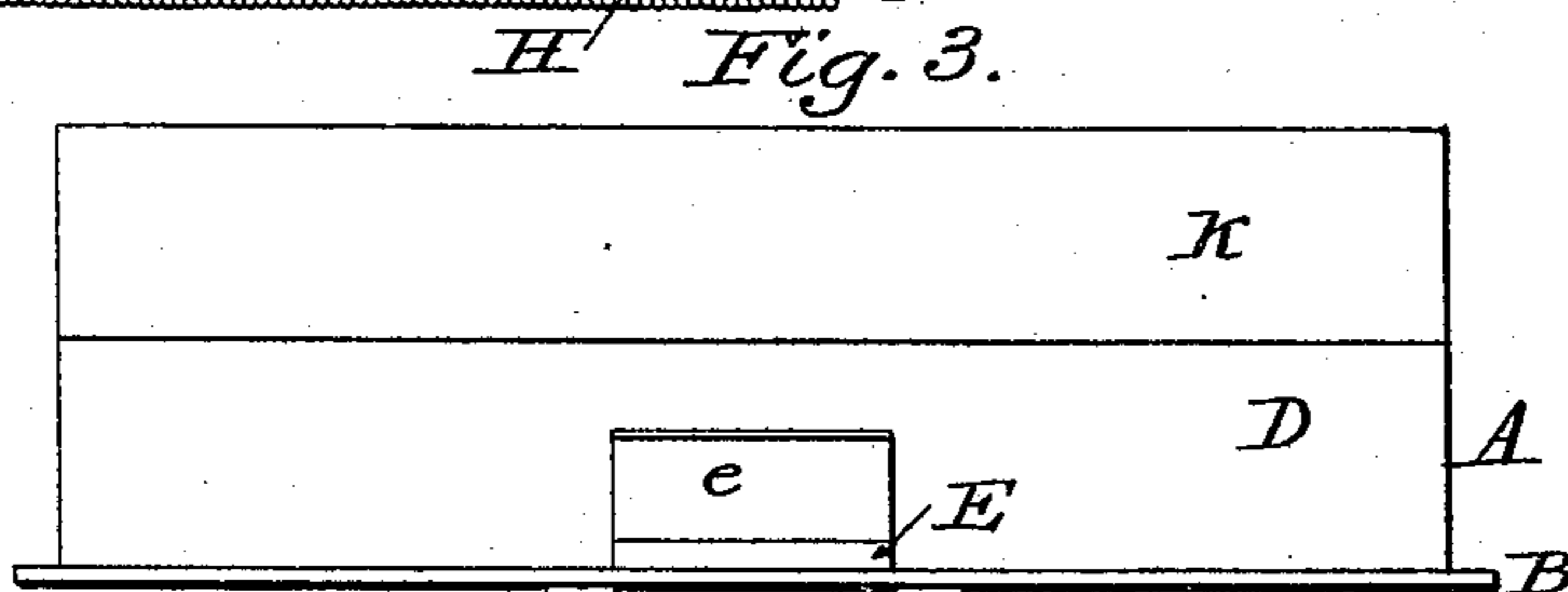
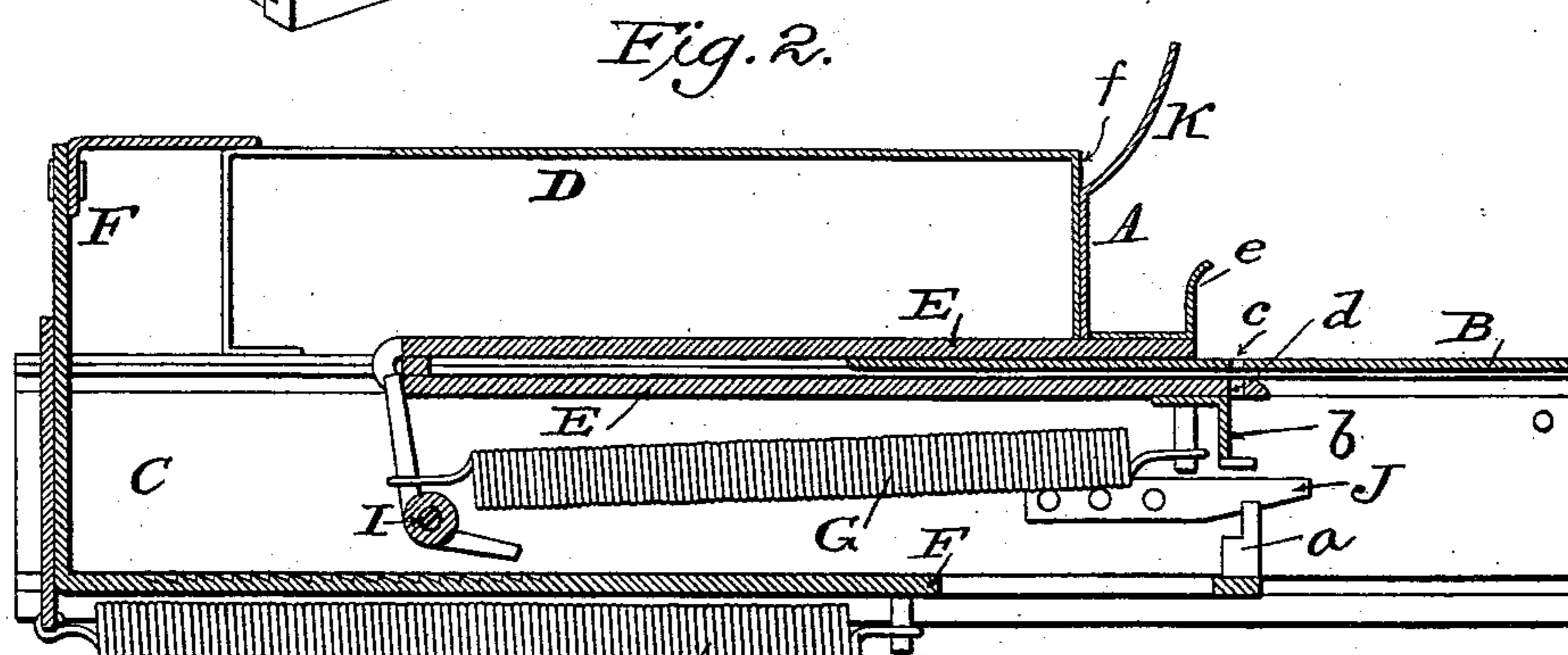
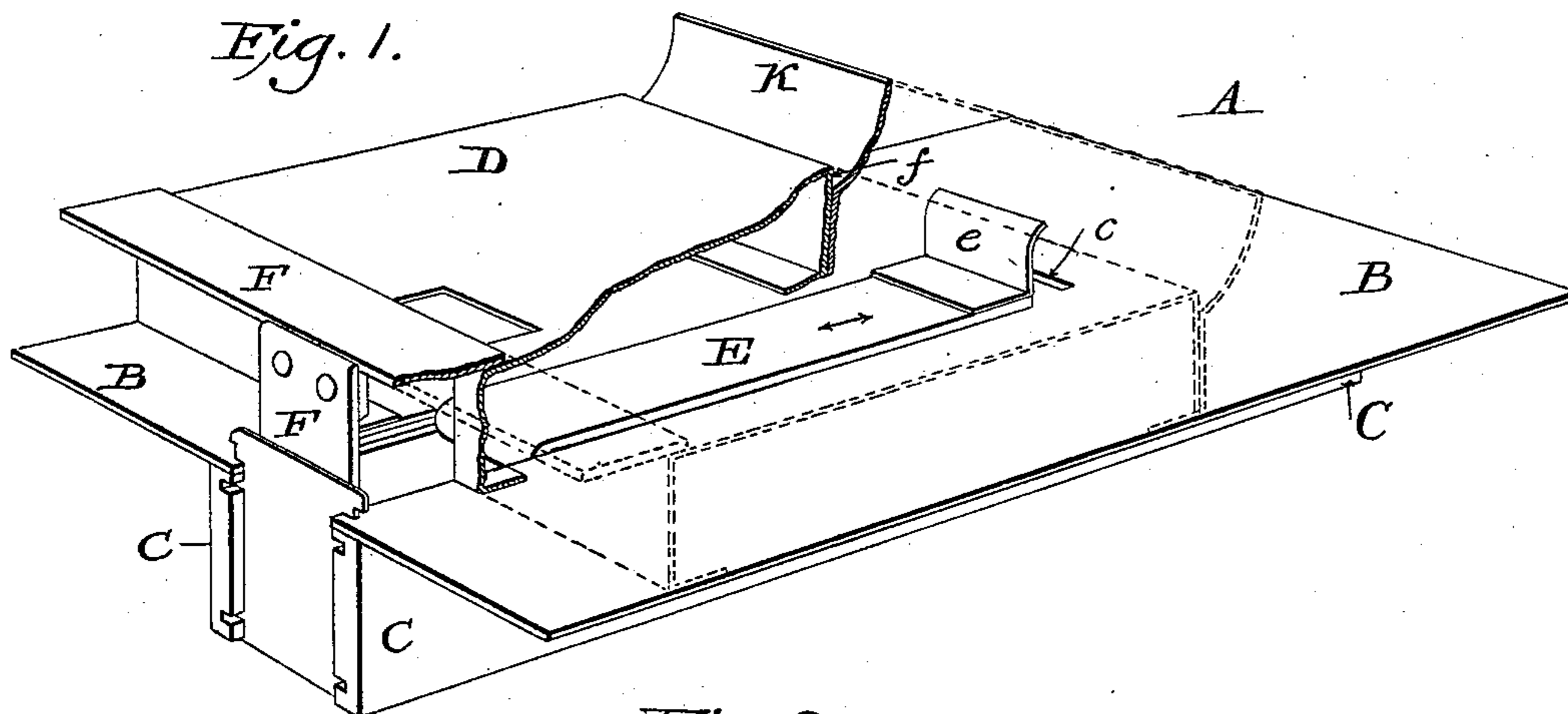


(No Model.)

J. A. WILLIAMS.
VENDING APPARATUS.

No. 414,786.

Patented Nov. 12, 1889.



Witnesses:

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Attys.

UNITED STATES PATENT OFFICE.

JOHN ALBERT WILLIAMS, OF BROOKLYN, NEW YORK.

VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 414,786, dated November 12, 1889.

Application filed July 12, 1889. Serial No. 317,300. (No model.)

To all whom it may concern:

Be it known that I, JOHN ALBERT WILLIAMS, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Vending Apparatus, of which the following is a specification.

My invention relates to vending-machines, and is designed more particularly for the vending of books or pamphlets.

In its general plan of operation the machine resembles that for which I have received Letters Patent No. 402,374, dated April 30, 1889, the delivery-slide being brought into action or connected with the operating-slide by means of a coin carried by the latter.

In the drawings, Figure 1 is a perspective view, partly in section, of the operative parts of my improved machine; Fig. 2, a longitudinal sectional view of the same; Fig. 3, a front face view, and Figs. 4 to 6 views illustrating certain details.

A indicates the supporting-frame as a whole, comprising a flat plate B, depending parallel guides C C, and block or support D.

E indicates the operating-slide; F, the delivery-slide; G and H, the retracting-springs therefor, and I the pivoted pawl adapted to lock the delivery-slide in position until released by the operating-slide, as set forth in my prior patent before referred to.

Inasmuch as the machine is designed for selling or vending books or pamphlets, the plate B and block or support D will be made much wider than usual, the upper plate of the delivery-slide being advisably, but not necessarily, made as wide as the support over which it moves, so as to bear against the book throughout its entire length. This delivery-slide F is constructed substantially as in an application of even date herewith, and of course is not claimed herein. It has of course a lug *a*, against which the coin carried by the operating-slide strikes when the latter is pulled outward, the said operating-slide being provided with arms *b b* for supporting the coin.

The plate B and slide E are each provided, respectively, with a coin-slot *c* and *d*, these parts being substantially as in my former patent, No. 402,374.

Pivoted or otherwise secured to the inner face of one of the guides C and extending

forwardly toward the front of the machine is a spring-arm J, which at its free end sets away a distance from the guide to which it is secured. When a coin of the proper size is placed on the arms *b b* of the operating-slide and the latter remains in the position shown in Fig. 2, it will not touch the spring-arm; but after the said slide is carried forward the coin strikes against the face of the arm, and as the coin is held at its upper and lower edges and at its sides it will force the free end of the arm backward toward the guide to which it is attached. As soon as the coin is carried past the free end of the arm the latter springs back behind the coin in such position that when the coin-slide is retracted the coin will be disengaged from or thrown off its supporting-arms *b b* by reason of the arm striking the coin from behind, as shown in Fig. 6. In the drawings I have shown but one of these spring-arms; but it is obvious that the number may be increased.

The operating-slide E in the present instance is U-shaped and at its forward end embraces both faces of plate B, as shown in Fig. 2, the rear part of the plate for the width of the slide E being cut away to receive not only the slide E, but also the upright portion of the delivery-slide. Support D is likewise cut away on its rear to provide for the forward movement of the delivery-slide.

Operating-slide E is provided with a thumb-piece or handle *e* on the end of that arm of the slide which works over the upper face of the plate B, and it will be noted upon reference to Fig. 2 that when this slide is pulled outward it covers the coin-slot *c* in the plate, thereby rendering it necessary to release or retract the slide before access may be had to the said slot. By this construction tampering with the machine by the insertion of wires, strings, &c., is prevented.

Secured to the front edge of the support D is a guard K, which, as shown in Figs. 1 and 2, curves outward away from and upward above the support, the said guard K joining the support a little below the upper edge of the latter, so as to form a shoulder *f*, against which wires, &c., will strike if it be attempted to withdraw articles by means of wires or sticks. Now, when a coin of the proper size is passed through the slots *c d*, it falls upon

the arms *b b*, and as the slide E is pulled outward the lower edge of the coin strikes the lug *a* on the delivery-slide, thereby locking the two slides together. As the slides thus move outward the coin is caused to depress or push back the spring-arm J, the coin-slot in the plate B is covered, and the article shoved forward by that part of the delivery-slide working over the top of the support D.

As the operating-slide E is pulled outward its spring rocks the pawl, so that the latter shall engage and hold the slide F, the slide F being held in this position until the spring G retracts the slide E far enough to strike and release the pawl, thereby allowing the slide F to be retracted by its spring H. As the slide E moves inward it carries the coin back with it until the latter, striking against the spring, is thrown down into the box or casing of the machine. (Not shown.) When the delivery-slide pushes the book outward, its edge strikes the curved guard and is carried upward sufficiently to enable the operator to take hold of and remove the book.

The slide E, instead of being made of a piece of metal doubled upon itself, may be made of two separate pieces united at their inner ends. The construction of the spring-arm is also a matter capable of considerable variation, and I do not wish to be understood as limiting myself to the precise construction shown.

Having thus described my invention, what I claim is—

1. In a book-vending machine, a support D, upon which the books rest, provided with an outwardly-curved guard K, secured to its front face, in combination with means for ejecting a book from the support, substantially as shown.

2. In a book-vending machine, a support D, upon which the books rest, in combination with a curved guard K, secured thereto a little below the top of the support to form a shoulder *f*.

3. In a machine for vending books, pamphlets, &c., the combination, with a frame A, having plate B and guides C C, of the actuating-slide embracing the plate upon its opposite faces and a delivery-slide.

4. In a vending-machine, the combination, with the plate B, having a coin-slot, of an actuating-slide E, embracing the plate on opposite faces and provided with a coin-slot in its lower arm to register with that in the plate, and a delivery-slide, the said parts being so arranged that when the operating-slide is pulled outward it will cover the slot in the plate.

5. In a vending-machine, the combination, with the plate B, cut away as shown, of the

U-shaped operating-slide embracing opposite faces of the plate and a delivery-slide.

6. In a vending-machine, the combination, with the plate B, having a coin-slot, of an actuating-slide E, having two arms, one of said arms resting upon the upper face of the plate and serving as a handle, and serving also to cover the slot in the plate B when the machine is operated, and the other having a coin-slot to normally register with that of the plate, and a delivery-slide.

7. In a vending-machine, the combination, with a delivery-slide, of an actuating-slide adapted to hold a coin in position to engage the delivery-slide and an arm against which the coin is adapted to strike as the actuating-slide is returned to position.

8. In a vending-machine, the combination, with the guides C C, of the slides E and F and a spring-arm projecting outwardly from the inner face of one of the guides.

9. In a vending-machine, the combination, with a frame or support, of an actuating-slide adapted to hold a coin, a delivery-slide arranged in position to be engaged by the coin of the requisite size carried by the actuating-slide, a yielding arm mounted in the frame or support, substantially as shown, whereby as the actuating-slide is drawn outward the arm will be retracted or pushed aside, but when the slide is returned to position the arm will strike the coin and dislodge it.

10. In an automatic vending-machine in which the actuating and delivery slides are designed to be connected by a coin, (or similar device,) the combination, with such slides and a coin-holder, of a fixed arm independent of the slides for dislodging the coin from its holder.

11. In a vending-machine, the combination, with the plate B, of a support D on the upper face thereof, a delivery-slide adapted to eject the books (or other articles) from the upper face of the support, and a guard K, projecting outward and upward from the front face of the support D, all substantially as shown.

12. In a vending-machine, the combination of a plate B, a support D on the plate for the articles to be sold, cut away on its rear edge, as shown, and a delivery-slide F, adapted to enter the cut-away portion of the support and eject the articles from the upper face of the latter.

In witness whereof I hereunto set my hand in the presence of two witnesses.

JOHN ALBERT WILLIAMS.

Witnesses:

GEO. W. SHERMAN,
GEO. F. ALBRECHT.