

No. 627,683.

Patented June 27, 1899.

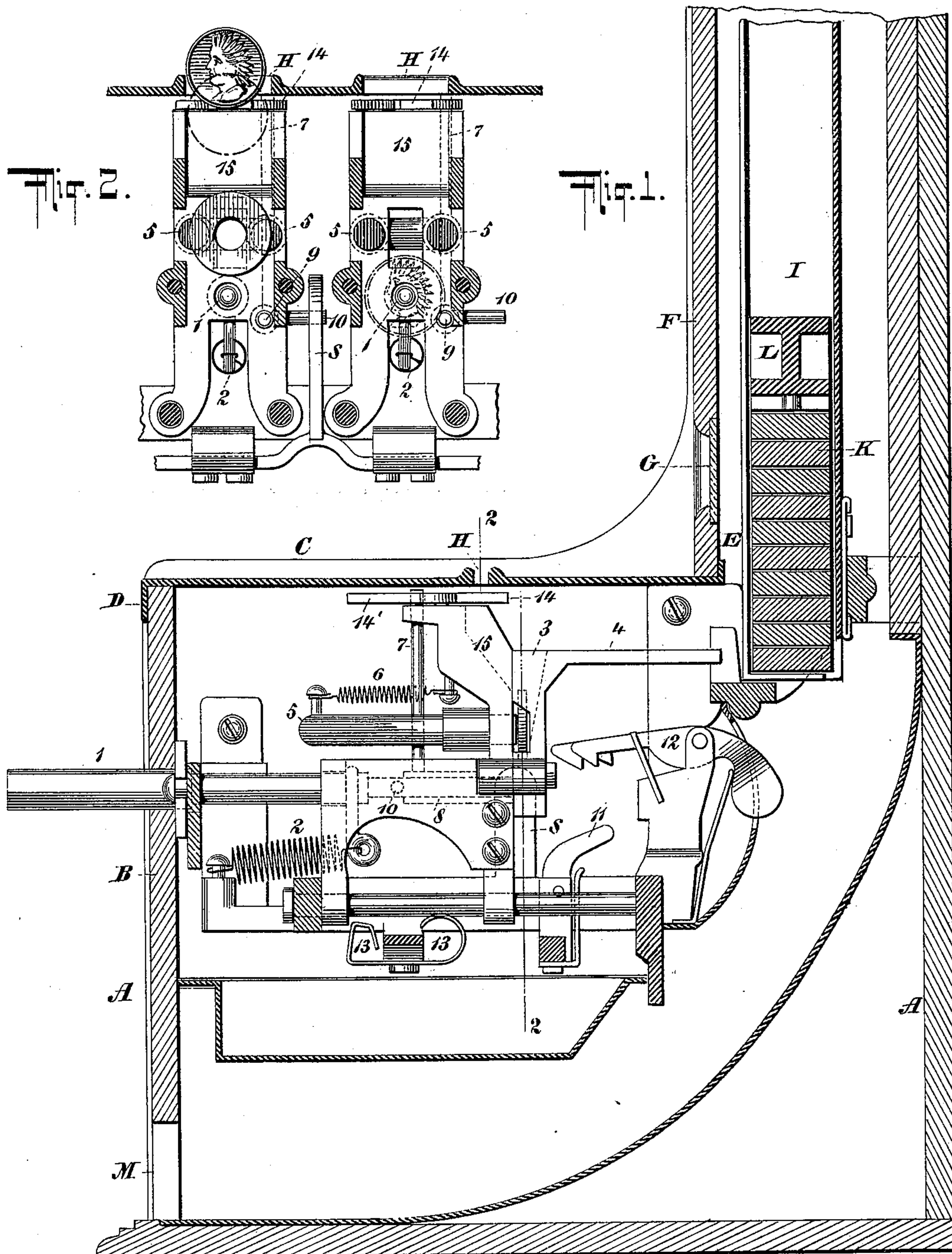
E. H. COOK.

COIN ACTUATED VENDING MACHINE.

(Application filed Dec. 18, 1898.)

(No Model.)

3 Sheets—Sheet 1.



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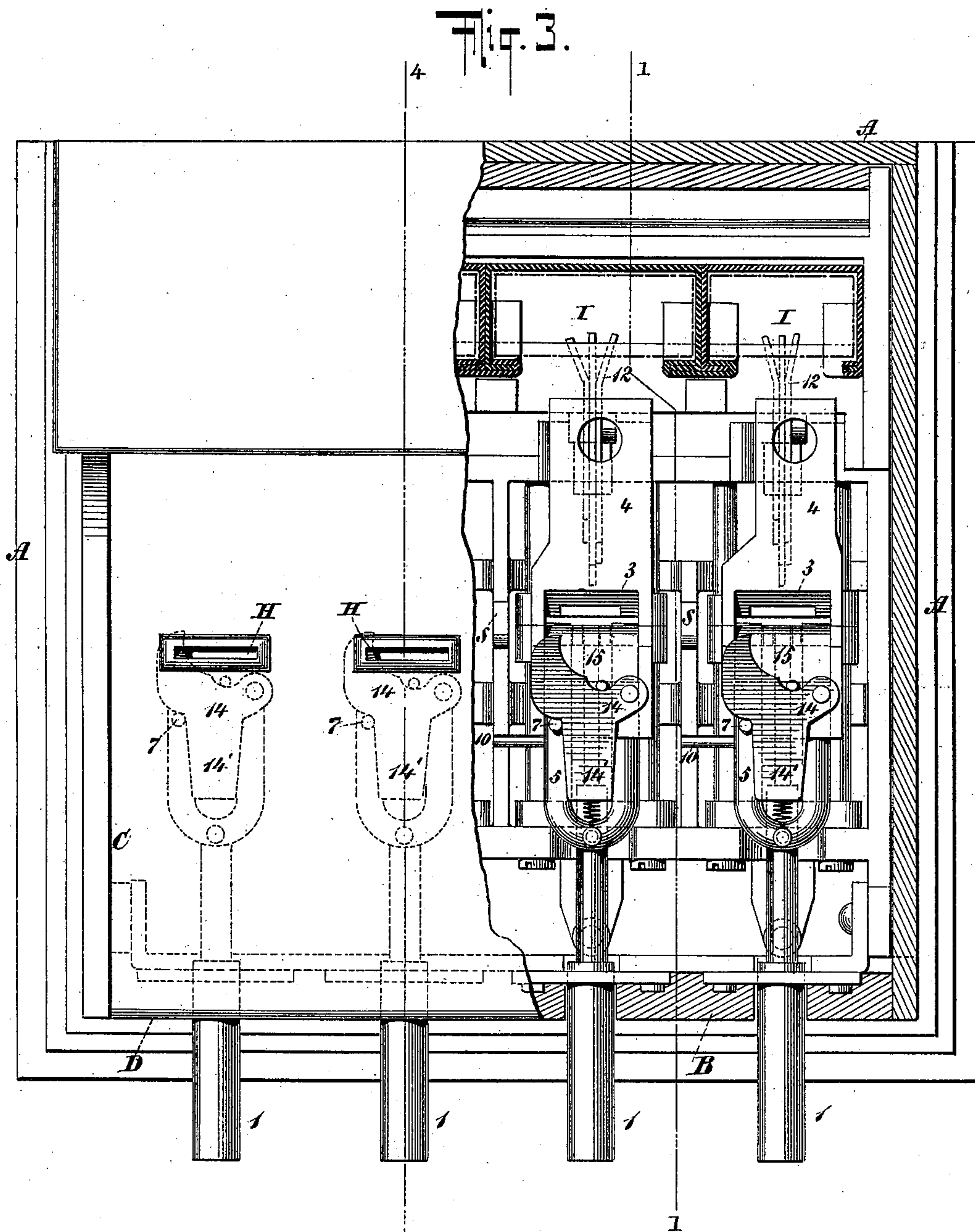
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3 Sheets—Sheet 2.



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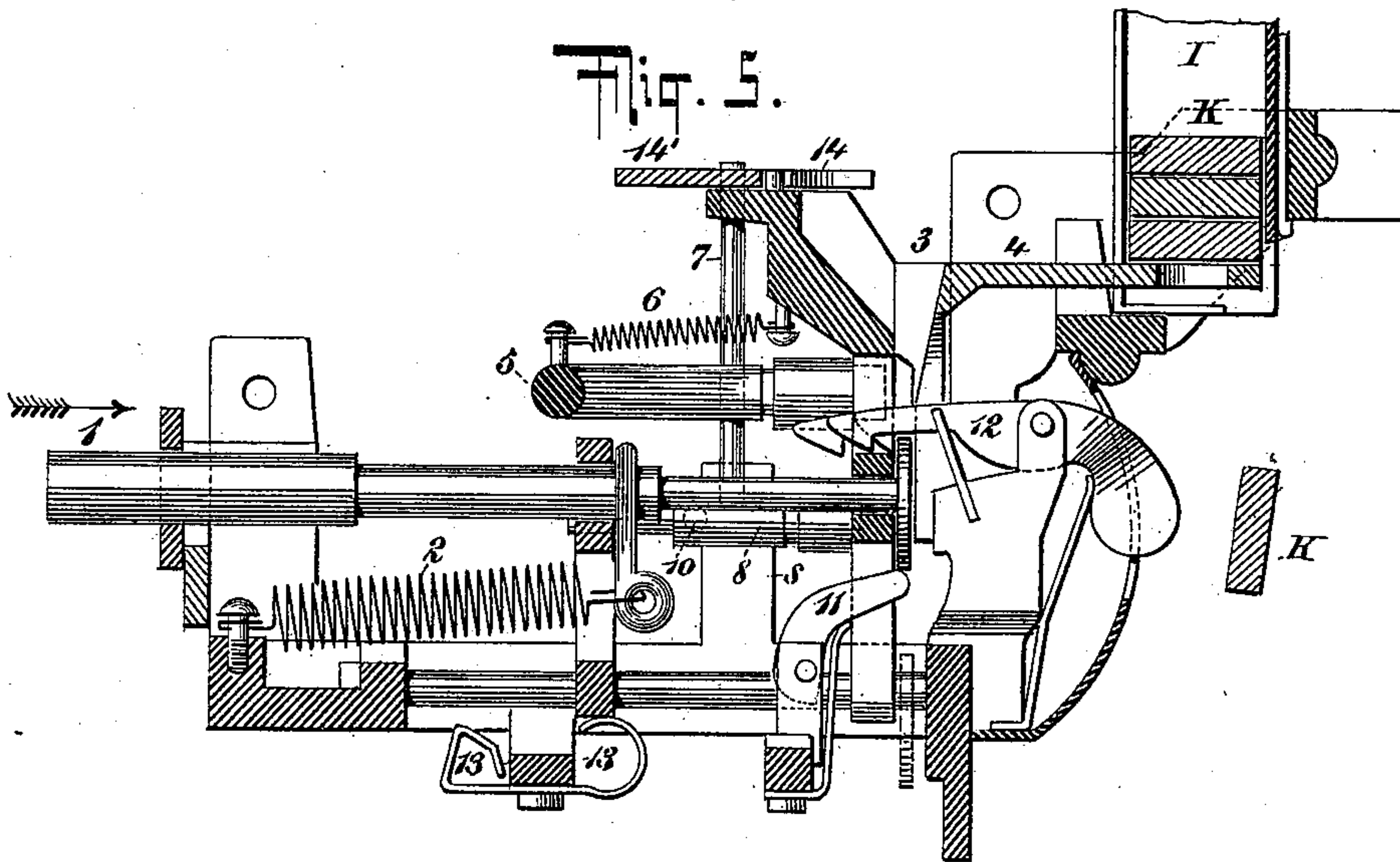
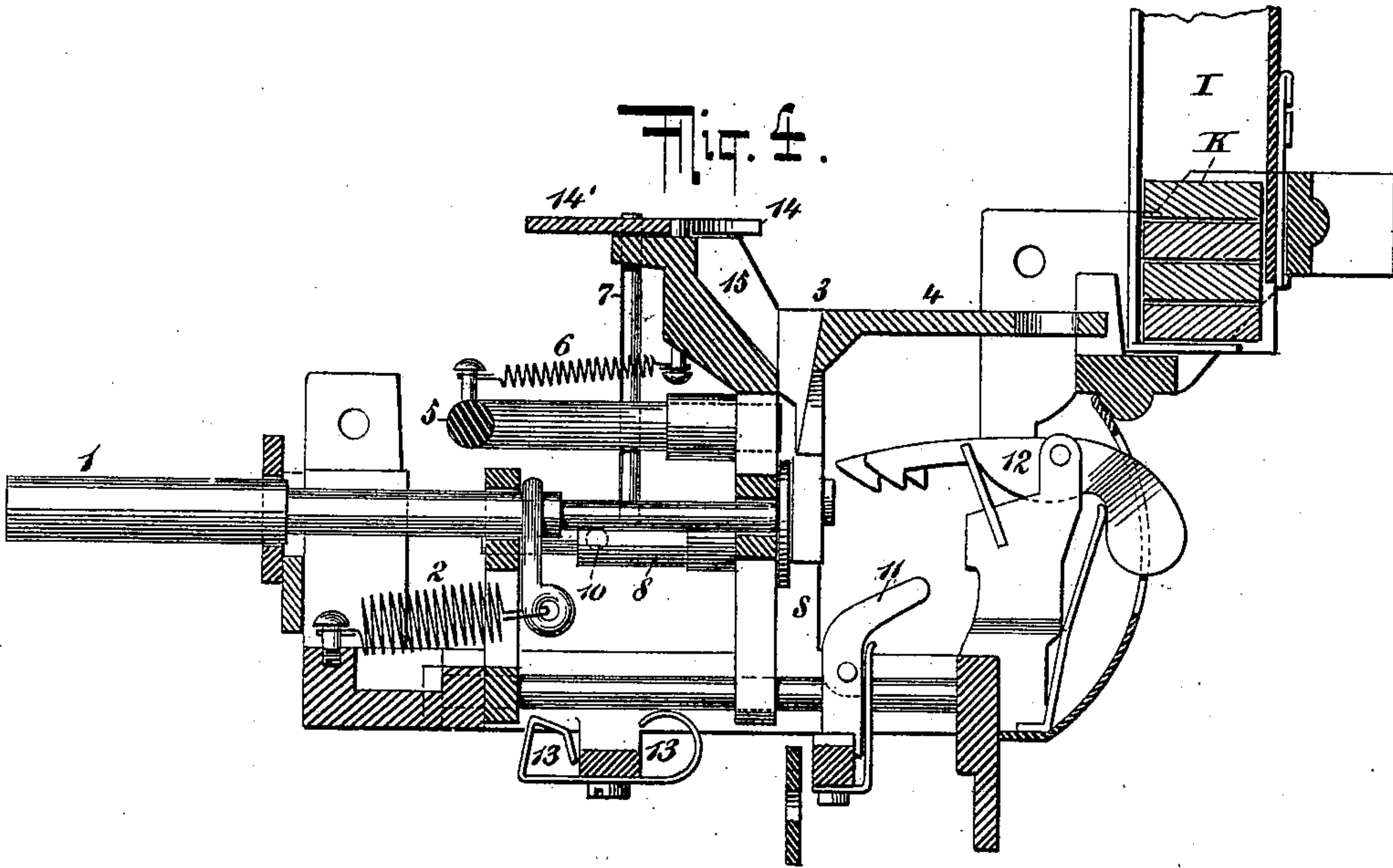
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# UNITED STATES PATENT OFFICE.

EDGAR H. COOK, OF NEW YORK, N. Y.

## COIN-ACTUATED VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 627,683, dated June 27, 1899.

Application filed December 18, 1896. Serial No. 616,108. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR H. COOK, a resident of the city of New York, (Brooklyn,) county of Kings, and State of New York, have  
5 invented a new and useful Improvement in Coin-Actuated Vending-Machines, of which the following is such a full, clear, and exact description as will enable others skilled in the art to make and use the same when taken in  
10 connection with the accompanying drawings, in which—

Figure 1 is a vertical section through the machine on the line 1 1 of Fig. 2. Fig. 2 is a vertical section at right angles to Fig. 1 on  
15 the line 2 2 of Fig. 1. Fig. 3 is a top view of the machine, showing the top plate partially broken away. Fig. 4 is a sectional view on the line 4 4 of Fig. 3, showing the delivery mechanism in the position ready to be oper-  
20 ated by the pusher; and Fig. 5 is a like view showing the mechanism in the position of having been operated by the pusher.

My invention relates to that class of apparatus known as "automatic vending-machines"  
25 which are operated to deliver confections, chewing-gum, and other articles only when a coin of predetermined denomination is put in the machine by a purchaser; and my invention consists of the combination of a magnet  
30 with the other operating parts of the machine whereby iron washers, slugs, or like objects will be held from passing into the operative position of the coin and will be discharged  
35 into the coin-box by the introduction of another coin in the slot, and the various modifications and combinations hereinafter specified and claimed.

The casing or box A of the machine may be made of wood, metal, or other material  
40 and is provided with a plate B, through which the pushers 1 1 1 1 pass, with a top plate C, which slides in grooves in the casing A and is provided with a flange D, covering over the top of the lower plate B, so as to hold it  
45 in position, and with a flange E, against which the door F of the case closes, which when locked to the side of the case A holds all the movable parts in position by one lock.

The door F is provided with peek-holes G,  
50 covered by a piece of glass, through which the packages of confections within may be seen.

The top plate C is provided with slots H,

through which the coin to operate the machine is passed to the mechanism within, the slot being made of such size as to properly  
55 receive the coin by which the machine is intended to be operated, whereby larger coins will be excluded.

In the drawings I have shown four mechanisms united in one machine, and that is the  
60 manner in which they are generally set up; but it is manifest that one mechanism may be mounted in a box by itself or any number, as desired, without departing from the nature of this invention. 65

Inside the door F in the upper part of the machine is a compartment or box in which the goods K, preferably in uniform packages, to be sold are contained, resting on the bot-  
70 tom of the box and forced down by the weight L. The cross-section of the box is clearly shown in Fig. 3, having the center of the front cut away, so as to give ready access to the box when the door F is open. At the lower  
75 end of the box I the box is entirely cut away at the back, so that the lowest package of goods may be pushed out by the plunger 4, as shown in Fig. 5. As is ordinarily arranged  
80 in this class of machines, the package will fall upon a curved slide provided for that purpose and be delivered at the front of the machine through the opening M.

The operative mechanism of this my invention belongs to that class in which the push-  
85 rod 1 is free to move in and out of the box, being retracted by a spring 2 and passing through the delivery-slide 3 when no coin is in the coin-pocket. When, however, a coin is in the coin-pocket, as shown in Figs. 4 and  
90 5, the delivery-slide will move with the push-rod 1, and the plunger 4 will push the lowest package from the pile contained in the box I.

The object of this my invention is to prevent the operation of the machine without the introduction of the proper coin therein, and  
95 for this purpose I have provided on the delivery-slide a horseshoe-magnet 5, which is held in position on the slide, free, however, to move backward and forward, but pressed against a shoulder thereon by the spring 6, so  
100 that the ends of the magnet are, when the magnet is its normal position, even with the side of the coin in the delivery-slide.

The magnet 5 has attached to it the rod 7,



which is also rigidly attached to the rod 8, which is free to move longitudinally with the motion of the magnet 5. The rod 8 passes through the wall of the coin-pocket and has 5 formed at its end the yielding coin-supporting pin 9. (Shown in Fig. 2.) This yielding coin-supporting pin 9, it will be observed, in Fig. 2 obstructs the passage through the coin-pocket and holds the proper coin in its position in front of the push-rod 1. The end of 10 the yielding coin-supporting pin which protrudes through the wall of the coin-pocket is preferably pointed or beveled, so as to allow a thin coin to pass by it.

15 The rod 8 has rigidly attached to it, at right angles thereto, the rod 10, which as the delivery-slide moves forward to deliver a package comes in contact with the stop S, whereby the yielding coin-supporting pin 9 and magnet 5 20 are prevented from going farther, while the delivery-slide moves forward, whereby the coin-pocket is opened for the free passage of the coin, the yielding coin-supporting pin no longer supporting the coin. The coin is, however, 25 held by the pressure of the push-rod 1 and by the yielding arm 11, which is of such length as to prevent the coin from dropping through the coin-chute until the package has been pushed from the goods-box.

30 Three spring detent-hooks 12 are provided to catch the coin and prevent the withdrawal of the delivery-slide until the full stroke of the slide has been made and the coin delivered in the coin-box.

35 To prevent the delivery-slide from being moved back and forth by changing the position of the machine, I have provided a double spring 13, which holds the delivery-slide in its place until moved therefrom by the proper 40 operation of the machine. As shown in Fig. 4, this spring prevents the delivery-slide from going forward, and in Fig. 5 it prevents the delivery-slide from going back until it is pulled back by the push-rod 1 and retracting-spring 2, acting on the delivery-slide, as shown 45 in Figs. 4 and 5.

It will be observed that mounted on the delivery-slide, so as to partially obstruct the slot H, is the lever 14, pivoted to the coin-chute 50 and pressed against by the rod 7, which is rigidly attached to the magnet 5 and coin-supporting rod 8, all being pressed to their normal position by the spring 6. The edge of the lever 14 which closes the slot H is of such 55 shape that when a coin is pressed into the slot the lever will be drawn back, leaving the coin-slot H clear for the passage of the coin and at the same time pressing back the rod 7, and consequently the magnet 5 and rod 8, 60 having thereon the coin-supporting pin 9, so that any coin held in the coin-chute by the coin-supporting pin 9 or by the attraction of the magnet 5 will be immediately released and allowed to pass down through the coin- 65 pocket into the coin-box, and the coin just introduced would be caught either by the

magnet 5 if an iron slug or by the coin-supporting pin 9 if a proper coin. If caught by the magnet, the push-rod 1 would freely play in and out through the delivery-slide, as 70 shown in the left-hand part of Fig. 2, but if a proper coin, resting on the yielding coin-supporting pin, as shown in the right-hand part of Fig. 2, the delivery-slide would be operated by the operation of the push-rod and 75 a package delivered at the chute.

The lever 14 when moved by the insertion of a coin, be it either a proper coin or a slug of the same size as a proper coin, will withdraw the coin-supporting pin 9 and the magnet 5 and release from the coin-chute and 80 coin-pocket any coins or slugs that may be held therein by either the magnet or the supporting-pin. The magnet and supporting-pin being returned to their normal positions by 85 the spring 6 will be in readiness to act upon a slug or a coin as it passes into the coin-chute or coin-pocket. The distance between the magnet and the coin-supporting pin is so small that the coin-supporting pin has not 90 time to return to its normal position during the time necessary for the slug held by the magnet to drop past the coin-supporting pin.

It will be observed that the slot H is not directly over the coin-pockets, but that the 95 coin is carried to the pocket by a slanting chute 15, so that an iron slug which has been arrested by the magnet may not be pushed down by a stick or wire inserted through the slot. This arrangement of slanting chute 100 will when the coin comes against the opposite side of the chute tend to throw the coin against the magnet, so that it may be more readily held thereby.

I am aware that coin-actuated vending- 105 machines have been made in which a coin has been used as a necessary part to convey the motion of the push-rod to the delivery-slide and do not wish to be understood as broadly claiming such device, and I am also 110 aware that in such vending devices coin-pockets have been made with a yielding coin-supporting pin so arranged that the introduction of a coin in the slot would withdraw the coin-supporting pin and discharge the con- 115 tents of the coin-pocket, making the same ready for the reception of the coin just introduced.

I am also aware that coin-actuated vending- 120 machines have been made in which magnets have been used to deflect iron or like slugs capable of being attracted by the magnet, but never before this my invention has a magnet been so arranged as to hold from the coin- 125 pocket an iron slug and discharge the same from the operative part of the machine upon the introduction of another coin.

What I claim as new, and desire to secure by Letters Patent, is—

The combination in a coin-actuated vend- 130 ing-machine of a delivery-slide having a coin-pocket formed therein; a coin-slot partially

closed by a lever connected with a coin-supporting pin normally forming a support for the coin in the coin-pocket, and with a magnet normally at the side of the coin-chute,  
5 the coin-supporting pin and magnet being withdrawn from their normal positions by the movement of the lever on the introduction of

a coin in the slot, substantially as specified and set forth.

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