

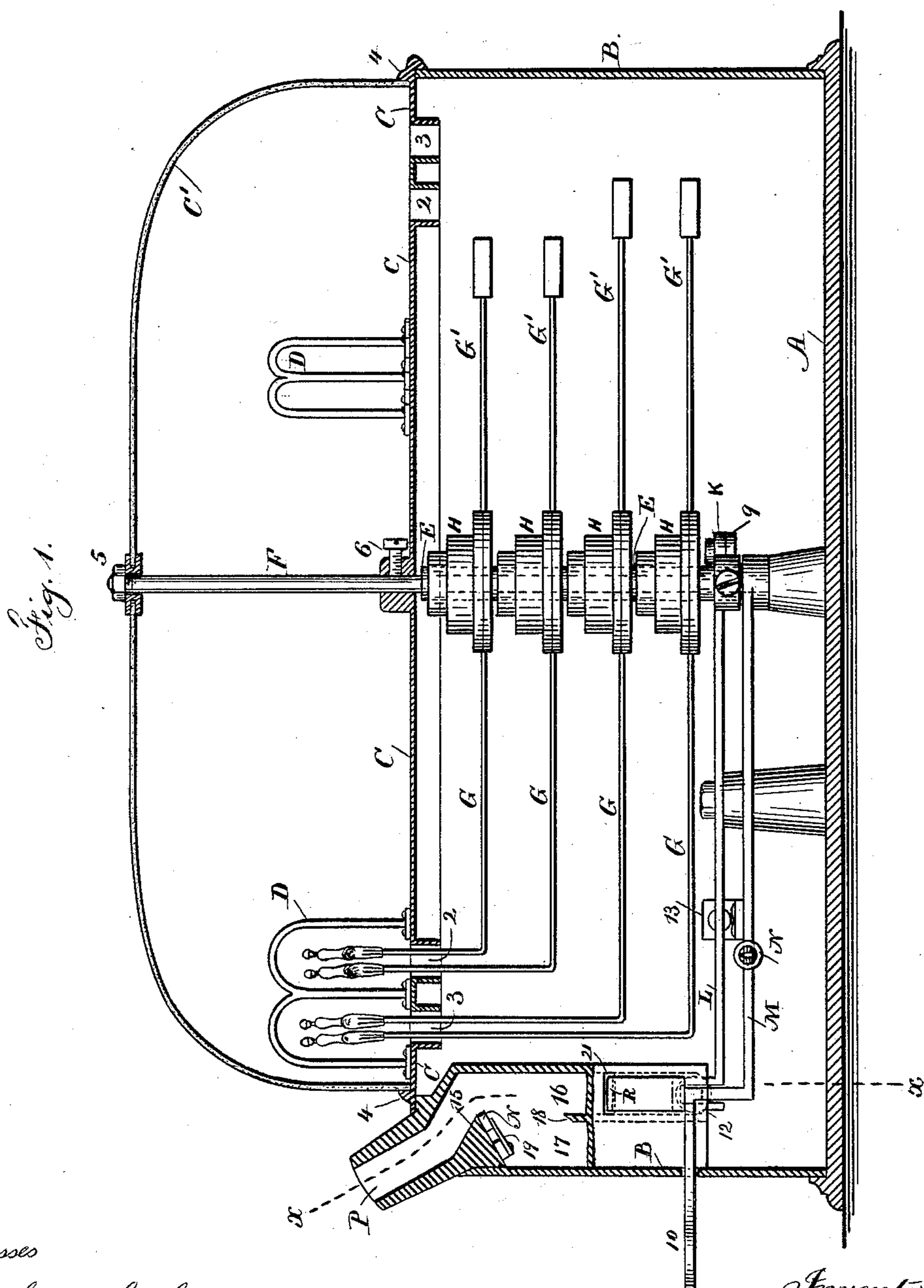
(No Model.)

2 Sheets—Sheet 1.

P. KENNEDY, Jr.  
COIN ACTUATED DEVICE.

No. 432,163.

Patented July 15, 1890.



Witnesses

Chas H. Smith  
J Stail

Inventor  
Patrick Kennedy Jr.  
per Lemuel W. Serrell atty

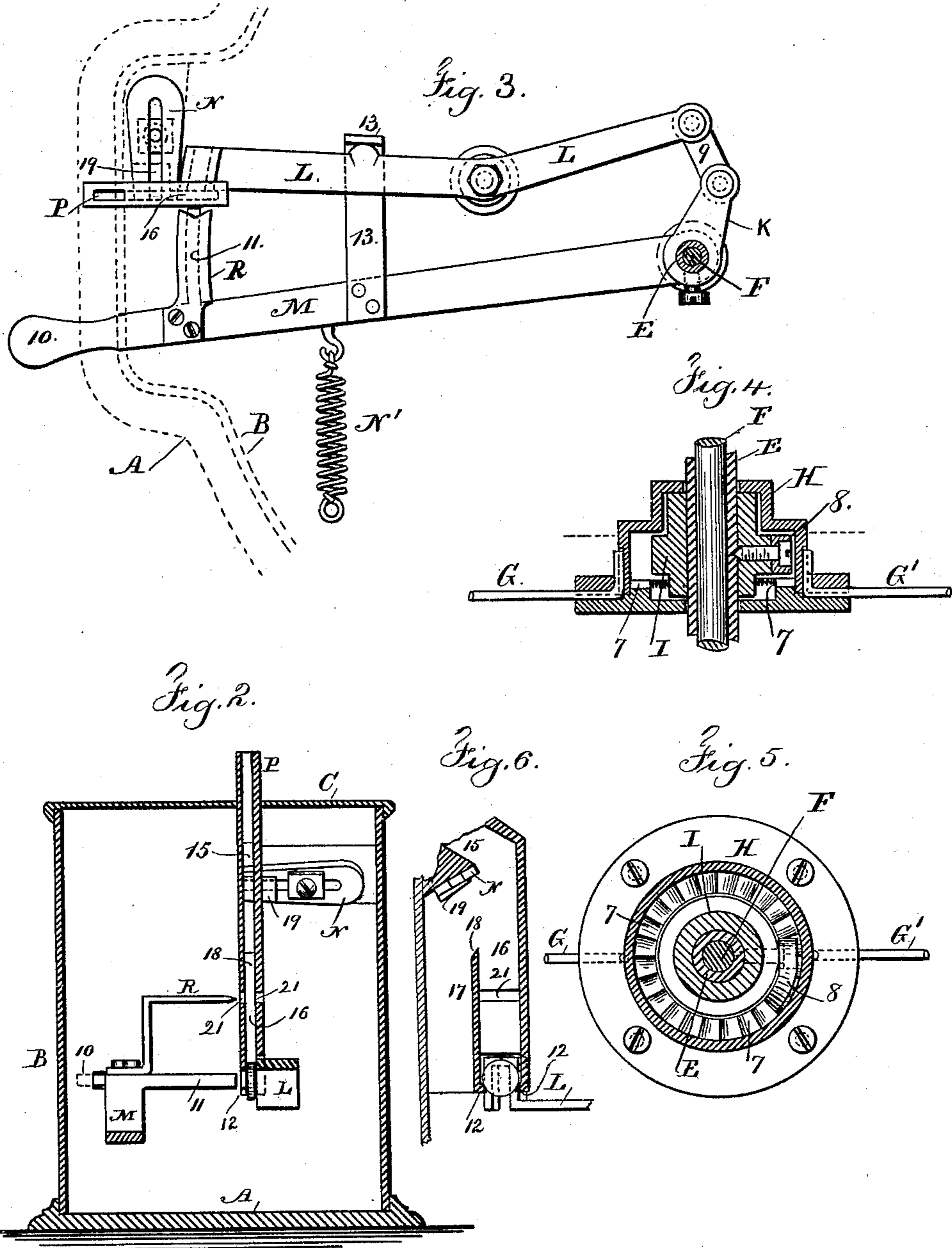
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# UNITED STATES PATENT OFFICE.

PATRICK KENNEDY, JR., OF BROOKLYN, NEW YORK.

## COIN-ACTUATED DEVICE.

SPECIFICATION forming part of Letters Patent No. 432,163, dated July 15, 1890.

Application filed October 4, 1889. Serial No. 325,971. (No model.)

*To all whom it may concern:*

Be it known that I, PATRICK KENNEDY, Jr., of Brooklyn, in the county of Kings and State of New York, have invented an Improvement in Coin-Actuated Devices, of which the following is a specification.

Toys have heretofore been made in which there are arms or wires extending from a central shaft beneath a plate or disk having circular slots through which such wires project upwardly, and receive toys representing horses, men, or animals, so that these are set in motion by lever mechanism after a coin has been dropped into a coin-receiving slot.

My present invention has a special reference to toys of this class, but some portions of the coin-receiving mechanism may be made use of in other coin-actuated devices.

In the drawings, Figure 1 is a vertical section of the coin-actuated toy. Fig. 2 is a section at the line  $x x$ , Fig. 1. Fig. 3 is a detached plan view of the levers made use of in actuating the toy. Fig. 4 is a section, and Fig. 5 a plan view, of the shells to which the wires or arms are attached for carrying the toy animals or similar devices.

The base A is usually circular, except at that portion where the actuating-levers are applied, where it projects outwardly, as represented by dotted lines in Fig. 3, and upon this base A rests the body B, usually of sheet metal, and having a similar contour to the base A, and upon the top of the body B is a plate C, having circular slots 2 and 3, and the rings into which the plate C is divided by circular slots 2 and 3 are connected together by the arches D, which are of a size adapted for the passage of the toy animals or other device, and at their lower ends these arches are firmly attached to the rings composing the plate or disk C, and I usually employ a glass case or shade C', the edges of which rest within an annular rib 4, and there is a central spindle F, attached at its lower end to the center of the base A, passing up through the plate C and through the glass shade C', and provided with a nut 5 to hold the glass shade in place, and the central part of the plate C is fastened to this stem F by a collar and screw at 6. Around the central stem

F is a tube E, which tube is loose and free to revolve or be partially turned upon the said stem F.

Where there are two circular openings 2 and 3 in the plate C, I usually employ four bent wires or arms G, two passing up in each circular slot and receiving at the upper ends toys, figures, or other devices to be carried around in such circular slots, and there are four devices for carrying these respective wires or arms, and it is preferable to balance the wires or arms and the device carried by them by the arms and weights G'. Each arm is fastened to a shell H, preferably made in two parts bolted together and surrounding the tube E, and these shells are hollow, so as to contain and rest upon the collars I, that are fastened to such tube E, and upon the lower part of each shell is a circular ratchet 7, and upon each collar I is a pawl 8, the end of which engages the teeth of the ratchet, so that when the tube E receives a partial rotation the end of each pawl 8, taking one tooth in each circular ratchet, gives to the shells H a rotary movement around the collars I, and the arms and toys or figures carried by such arms continue to move around until their movement is arrested by the friction of the shells H upon their respective collars and around the tube E, and some of the toys or figures will stop in one position and others in other positions, and the length of time during which the parts continue in motion will depend upon the force exerted and the rapidity of movement given to the tube E.

In order to give motion to the tube E, I attach to the same a crank-arm K, with a link 9 to the actuating-lever L, and there is a second lever M, with a handle 10, passing through a slot and projecting outside the base of the toy, which handle is used to give motion to the lever L whenever a coin intervenes between the pusher 11 and the coin-support on the lever L; but when there is not any coin in the holder 12 the pusher 10 passes into an opening in the coin-support, and no motion results from the same. There is a spring N' to draw the lever M into its normal position, and the arm or hook 13 is made use of to draw the lever L back to its normal position.

I remark that the lever M has an eye at its inner end, which is loose around the stem F, so that the movement of such lever M does not turn either the stem or the tube E.

5 In some coin-actuated devices heretofore made use of a difficulty has arisen in consequence of washers or disks of iron being introduced into the coin-opening instead of the coin of the same size, and attempts have been  
10 made to hold such iron disks or washers by permanent magnets. These devices, however, are liable to obstruct the machine and to prevent it being subsequently made use of. The object of one portion of my present in-  
15 vention is to prevent this difficulty by deflecting the disk or washer or iron and causing it to pass away by a different channel. At P the coin slot or receiver is represented. In this there is an angle at 15 to lessen the mo-  
20 mentum of the coin as it passes down the receiver, and below this angle 15 is placed a permanent magnet N, the poles of which pass into and across beneath this angle 15; and there are two vertical channels in the slot or  
25 receiver, the channel 16 being for the coin, the channel 17 for the iron disk or washer, and the partition 18 separates the one from the other, and at 19 is a small plate of brass or other non-magnetic material beneath the  
30 poles of the magnet M to prevent the iron disk adhering to such magnet. It will now be apparent that when a coin is introduced into the slot or receiver P it passes on un-  
35 acted upon by the magnet and falls through the channel 16 into the holder 12; but in cases where an iron disk or washer of the same size as the coin is introduced into the coin-slot the magnetism commences to arrest the movement of the same as it rolls along the  
40 angle 15, and the edge of one pole of the magnet N partially arrests the piece of iron, causing the same to roll along beneath the poles of the magnet and over the channel 17, and the intervening plate 19 of brass causes the  
45 iron disk to fall into such slot 17, the strength of the magnet being proportioned to the weight of the iron disk or washer, so that the magnet simply deflects such iron disk or washer and causes it to fall into the channel  
50 17, instead of allowing the same to go down the channel 16, or instead of holding such iron disk and obstructing the action of the machine, and in case a second iron disk is introduced the momentum of the same will,  
55 under the action of the magnet, be sure to deflect such disk into the channel 17, even though the first of such iron disks may have been momentarily detained by the magnetism.

The lower end of the channel 17 is open,  
60 so that the iron disks or washers will drop upon the base A, but the coin will fall through the channel 16 and rest upon the lips 12, forming a holder at the lower end of the channel 16, Fig. 6; but if the coin is too small it will  
65 pass through between the two lips 12 of the holder and drop upon the base A. It will now be understood that when the lever M is

moved by the handle 10 the pusher 11 will come into contact with the coin, if one has before been introduced, and such coin will be  
70 pressed against the side of the lever L and be carried laterally off the lips 12, and the two levers will be moved together at whatever speed of motion is imparted to the lever M, and the toys will be set spinning around,  
75 as before described, and when the lever M is drawn back by the spring N' the pressure against the coin is first released and the coin being supported drops away, after which the hook 13 draws the lever L back to its normal  
80 position.

In some coin-actuated devices a strip of paper or a piece of string is sometimes fast-  
85 ened to the coin in order that it may be withdrawn from the coin slot or receiver after the object of its insertion has been attained. To prevent this I affix a cutter R upon the lever M, and the end of this cutter is adapted to  
90 pass through the slots 21 in the coin-channel 16, so that this cutter will separate a piece of paper or string that may be connected with the coin, and it is preferable to make this  
95 cutter V-shaped, so that the string or other material may not be pushed aside by the cutter, but it will be drawn to the center and easily cut off, so that the coin will fall away, as before described.

I claim as my invention—

1. The combination, with the base A, body B, and plate C, having the circular slots 2 and  
100 3, of a glass shade C', resting at its edges upon the plate C, and the fixed central stem F, extending from the base A and passing through and supporting the center of the plate C and holding the glass shade C' in  
105 place, substantially as set forth.

2. The combination, with the base A, body B, and plate C, having the circular slots, of  
110 the central stem F, the tube E around said stem, the collars I, attached to the tube, the shells, each having a circular range of ratchet-teeth, the wires or arms carrying the toys or figures, and the pawls upon the collars for giving motion to the shells and the parts car-  
115 ried by them, substantially as set forth.

3. The combination, with the coin-slide having coin-supporting lips at its lower end, of  
120 the actuating-lever L at one side of the lower end of the coin-slide and having an opening opposite to the center of the coin, the lever M, the pusher 11, connected with the lever M and adapted to pass across the slide and into the opening in the lever L in the absence of the coin, whereby the coin is carried out of the slide by the pusher and the lever L is  
125 moved by the lever M, and the coin is dropped by the lever M moving back from the lever L, substantially as set forth.

4. In a coin-actuated device, the combina-  
130 tion, with the coin-receiver having an angle to lessen the momentum of the coin, of a stationary magnet below the angle adapted to attract an iron disk or washer, and the vertical channels 16 and 17, separated by the par-

tition 18 below the magnet, whereby an iron disk will be deflected by the magnetism from the coin-channel into the channel 17, substantially as specified.

5 5. The combination, with the coin receiver or channel and the coin-holder at the lower end thereof, of the lever M and the cutter therewith connected, having a V-shaped cutting-edge and passing transversely through  
10 the slot in the coin-channel to draw a string

or similar device to the middle part of the slot and cut the same, substantially as set forth.

Signed by me this 25th day of September, 1889.

PATRICK KENNEDY, JR.

Witnesses:

GEO. T. PINCKNEY,  
WILLIAM G. MOTT.