

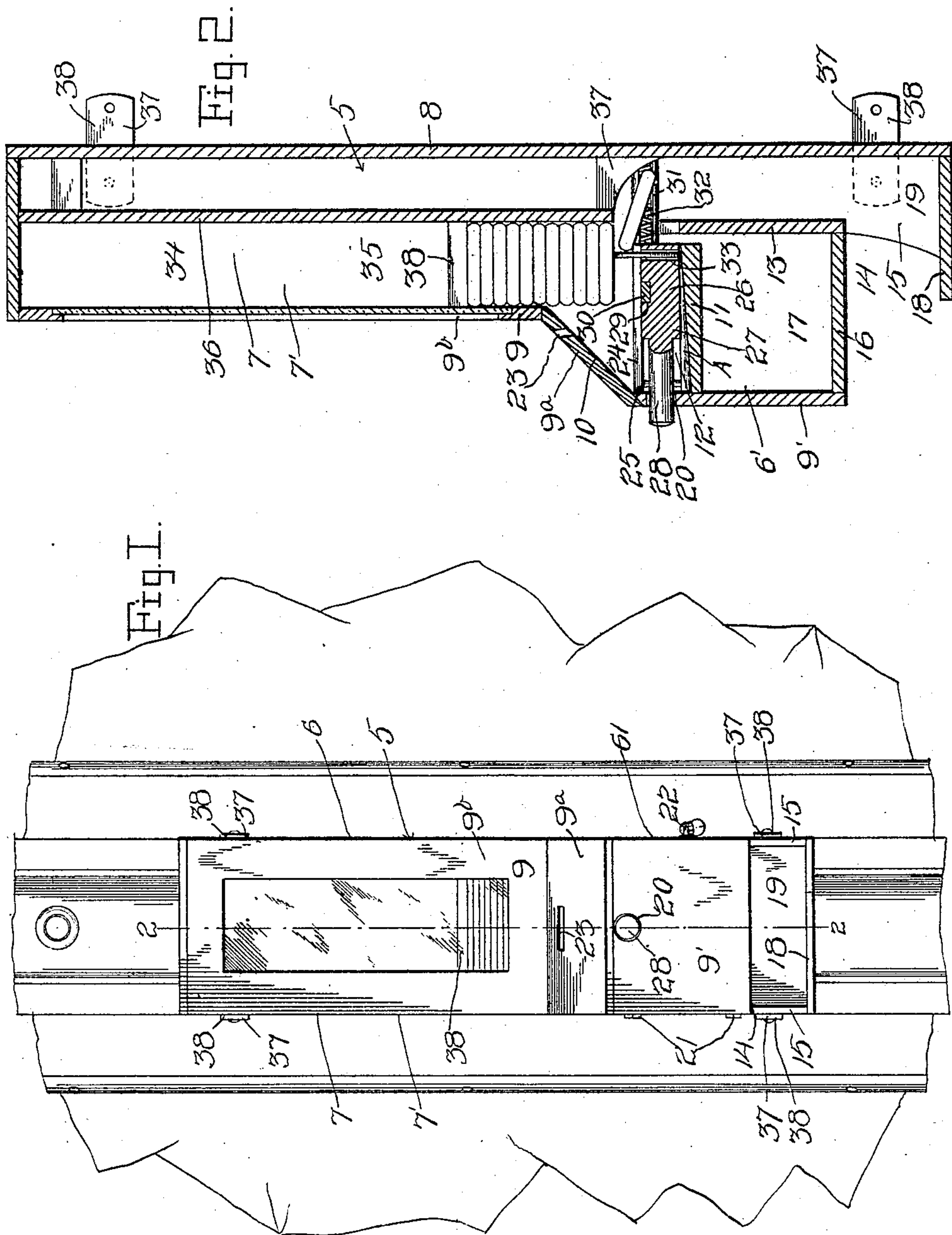
No. 824,543.

PATENTED JUNE 26, 1906.

W. A. HICKEY & J. BROWN.
COIN OPERATED MECHANISM.

APPLICATION FILED JAN. 7, 1905.

2 SHEETS—SHEET 1.



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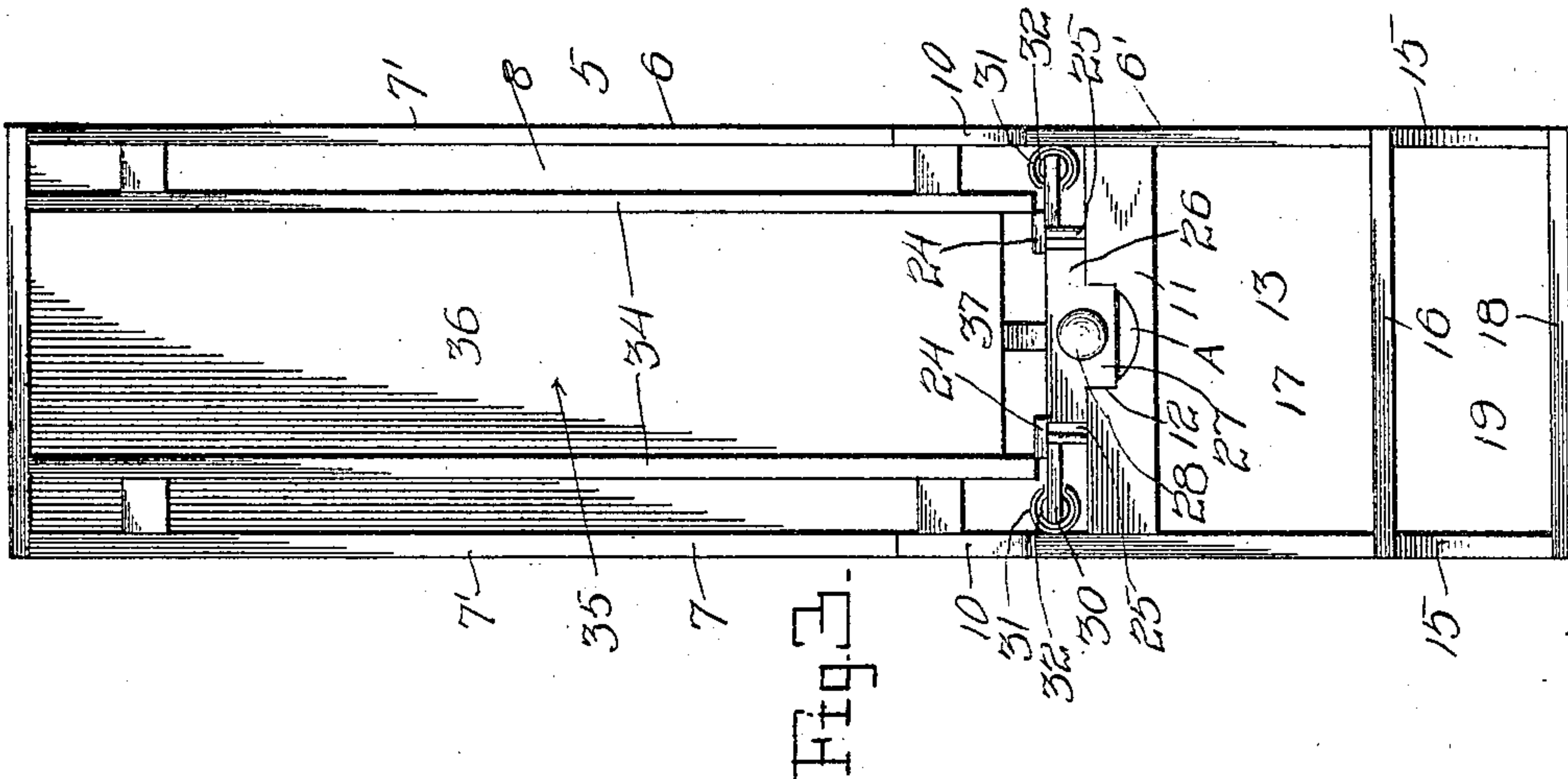
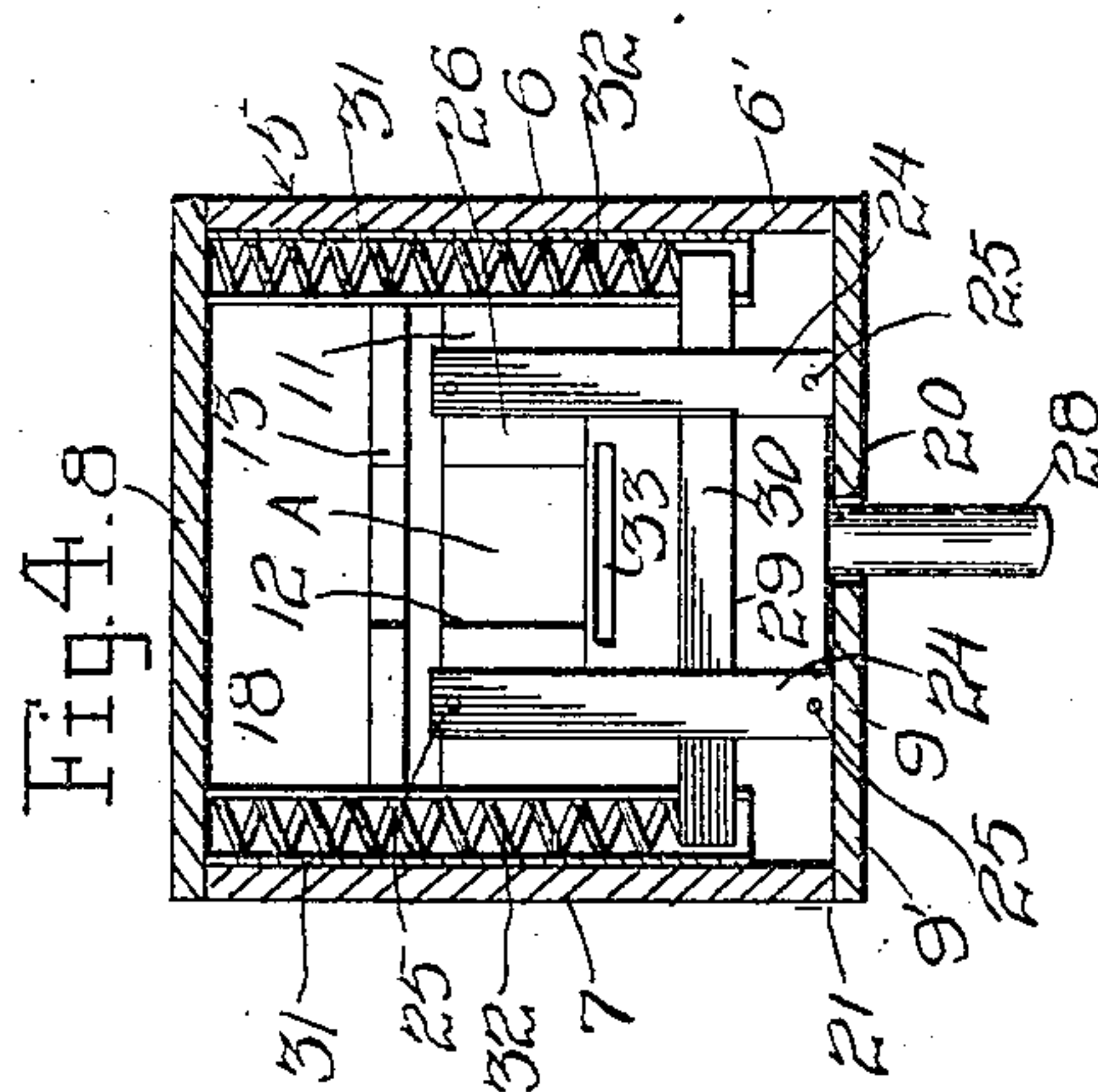
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UNITED STATES PATENT OFFICE.

WILLIAM A. HICKEY AND JOSEPH BROWN, OF ST. PAUL, MINNESOTA.

COIN-OPERATED MECHANISM.

No. 824,543.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed January 7, 1905. Serial No. 240,076.

To all whom it may concern:

Be it known that we, WILLIAM A. HICKEY and JOSEPH BROWN, citizens of the United States, residing at St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Coin-Operated Mechanisms; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to coin-operated mechanisms, and more particularly to coin-actuated vending-machines, and has for its object to provide a machine of this kind which will be arranged to automatically discharge an article of merchandise therefrom and which will include a novel arrangement of parts which will produce the desired result in a simple and efficient manner.

Another object is to provide a machine embodying this feature which may be applied to a street-car and which may be secured to one of the upright stanchions of the car.

Other objects and advantages will be apparent from the following description, and it will be understood that modifications of the specific construction shown may be made and any suitable materials may be used without departing from the spirit of the invention.

In the drawings forming a portion of this specification, and in which like characters of reference indicate similar parts in the several views, Figure 1 is an elevation of the present invention applied to a street-car. Fig. 2 is a section on line 2 2 of Fig. 1, illustrating the machine in the act of discharging an article therefrom. Fig. 3 is a front view of the device with the front covers removed. Fig. 4 is a horizontal section taken just above the slide and illustrating the latter in top plan, the guides being broken away to illustrate the springs.

Referring now to the drawings, the present invention comprises a body portion 5, including sides 6 and 7, a back 8, and a front 9. The lower portions 6' of the sides 6 and 7 extend forwardly beyond the upper portions 7' of the sides, the upper edges of these forwardly-extending portions being beveled upwardly from their forward edges, as shown at 10. The upper portions 7' are approximately twice the height of the lower portions 6', as shown. Secured within the body portion 5 and extending transversely thereof there is a

horizontal partition 11, which terminates short of the back 8, and formed in the upper face of this partition 11 there is a recess 12, which extends from the forward to the rearward edge thereof, the forward portion of the bottom of this recess being concaved transversely thereof, as shown. Extending vertically within the body portion between the partition 11 and the back 8 there is a partition 13, which is spaced a sufficient distance from the back to permit of the passage of the articles vended by the machine between it and the back, the space between the partition 13 and the partition 11 being of a size for the passage of coins therethrough. The partition 13 terminates short of the upper face of the partition 11, but extends some distance therebelow, and below the lower edge of the partition 13 the portions of the sides 6 and 7, which lie forwardly of the plane of the partition, are cut away, as shown at 14, resulting in depending portions 15 of the sides. Secured to the lower edges of the sides above the cut-away portions 14 there is a bottom board 16, which terminates at the partition 13, which with the bottom board form a till 17. Secured to the bottoms of the portions 15 and to the bottom of the back there is a board 18, there being thus formed a discharge-pan 19.

The front 9 consists of three portions, the lowermost portion 9' being attached to the forward edges of the portions 6' and having an opening 20 therethrough registering with the recess 12. The portion 9' thus forms a front for the till 17. At one side the portion 9' is connected with the side 7 by means of hinges 21, and at the other side there is a suitable latch 22 to hold the portion 9' in operative position. The intermediate portion 9^a of the front is secured to the slanting edges 10 and has a coin-slot 23 formed therethrough, while the upper portion 9^b of the front is secured to the forward edges of the sides above the portions 6'.

Secured to the upper face of the partition 11, one at each side of the recess 12, are plates 24, which lie in spaced relation to the partition and which are held in position by pins 25, engaged in their ends and in the partition 11. A slide 26 is disposed upon the upper face of the partition 11 and is movable transversely thereof, this slide having a depending rib 27, which lies within the recess 12, and having extending forwardly therefrom a plunger 28,

which projects outwardly through the opening 20. The slide 26 has a transverse groove 29 in its upper face, in which there is engaged a rod 30, extending laterally beyond the slide 5 and beneath the plates 24, the ends of this rod lying beyond the outer edges of the plates, and secured to the inner faces of the sides are longitudinally-slotted tubes 31, in the slots of which the ends of the rods are engaged, the tubes extending horizontally so that the rods move longitudinally within the slots of the tubes when the slide is moved. The rearward ends of the tubes are closed by the back 8, against which they rest, and disposed between the back and the rearward face of the rod are helical springs 32, which lie within the tubes 31 and hold the slides yieldably at the forward limit of its movement. Formed vertically through the slide 20 and its rib 27 there is a slot 33, and the slide is movable to bring this slot above and into registration with the coin-passage between the partitions 11 and 13, and when the slide is in its normal position in which it is held by the springs 32 the slot 33 lies below the coin-slot 23 and in position to receive a coin passed therethrough. It will thus be apparent that a coin dropped through the slot 23 will fall into the slot 33 and may be moved by the slide to a point above the space between the two partitions. When it has reached this position, the coin will pass out of the slot 33 into the till 17. When the coin is moved by the slide, the lower portion of the periphery 35 of the former rests against the concave bottom of the recess 12, and when in this position the upper portion of the coin extends out of the slot 33 and projects slightly above the upper faces of the plates 24, so as to engage an article resting upon these plates.

Secured to the inner faces of the sides 6 and 7 and lying in spaced relation thereto are the walls 34 of a magazine 35, which contains the articles to be vended, the back of this magazine being formed by a plate 36, which lies in spaced relation to the back 8. The walls 34 extending vertically and are disposed with their lower ends adjacent to the plates 24, these plates at their rearward ends extending between the walls and terminating short of the back 36, the lower edge of the latter being spaced vertically from the plane of the plates, and the forward edges of the walls 34 lie rearwardly of the plane occupied by the slot 33 when the slide 26 is in its normal position.

Secured at its forward end to the rearward face of the back 36 and at its rearward end to the forward face of the back 8 there is a block 37, which extends below the back 36, and below the back the block is beveled downwardly and rearwardly for a purpose to be presently described.

When in use, the articles to be vended are disposed in the magazine 35, lying one upon

another and the lowermost resting upon the plates 34. Disposed upon the uppermost article there is a suitable weight 38. In the operation of the machine a coin is passed through the slot 23 to the slot 33, after which the slide is moved rearwardly to bring the upper portion of the coin into engagement with the lowermost article. Further movement of the slide causes this article to move rearwardly and brings its rearward edge into engagement with the bevel face of the block 37, the article being thus directed downwardly into the space between the partition 13 and the back 8, falling through this space to the discharge-pan 19. The arrangement is such that as soon as the article has left the plates 34 the coin passes into the till 17, as described above.

The body portion 5 is provided with attaching devices 37, by which the machine may be attached to one of the vertical stanchions of a street-car. The attaching devices consist of plates 38, having perforations adjacent to their ends. These plates are secured at one end to the sides 6 and 7, adjacent to the tops and bottoms thereof, and project beyond the back 8, and certain of the perforations are located in these rearwardly-projecting portions. The width of the machine is such that the rearwardly-extending portions of the plates are spaced sufficiently to receive the stanchion of a car therebetween, and the plate may be secured to the stanchion by means of screws passed through the perforations and the rearwardly-extending portions of the plates.

As mentioned, the forward portion of the recess 12 is concaved, and the rearward portion thereof is also somewhat concaved, but slants upwardly to form an inclined plane A. When the coin passes into the slot 33, as mentioned above, the lower edge of the coin rests against the bottom of the recess 12, and the incline A is so disposed that after the upper portion of the coin has come into engagement with the article to be discharged and has passed beneath the article next above the coin will be raised to lift the articles lying above the one to be discharged, thus relieving the weight upon the latter and facilitating its rearward movement.

What is claimed is—

A mechanism of the class described comprising a casing, a horizontal partition in the casing, a slide disposed upon the partition for movement thereover, longitudinally-slotted tubes disposed at opposite sides of the slide, helical springs within the tubes, a rod carried by the slide and engaged at its end portions slidably in the slots of the tubes, said rod resting against the springs, said springs being arranged to hold the slide at one limit of its movement, said slide having a coin-receiving slot therein and being arranged for movement against the action of

the springs to bring a coin in the slot into en-
gagement with an article disposed upon the
plates and for further movement to disen-
gage said article from the plates and to move
5 the coin beyond the horizontal partition to
permit of passage of the coin downwardly
through the coin-slot.

In testimony whereof we affix our signa-
tures in presence of two witnesses.

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JOSEPH BROWN.

Witnesses:

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JOHN H. HAUSE.