

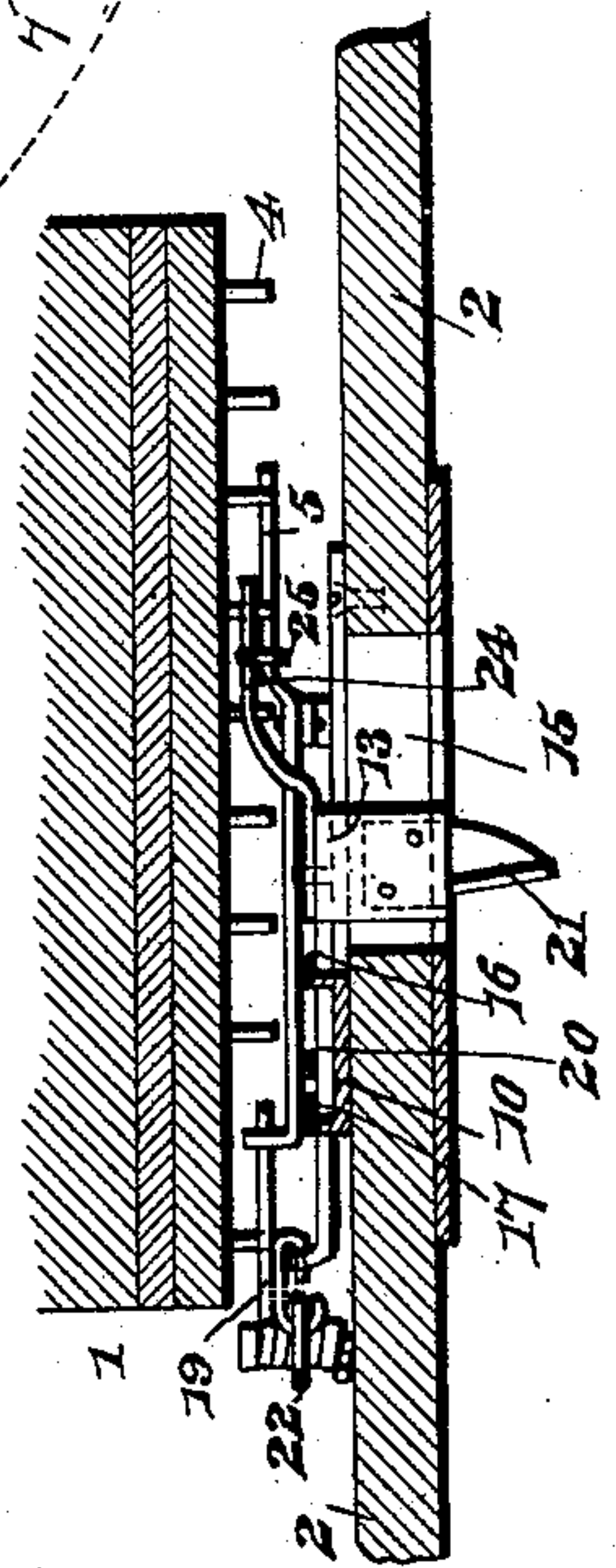
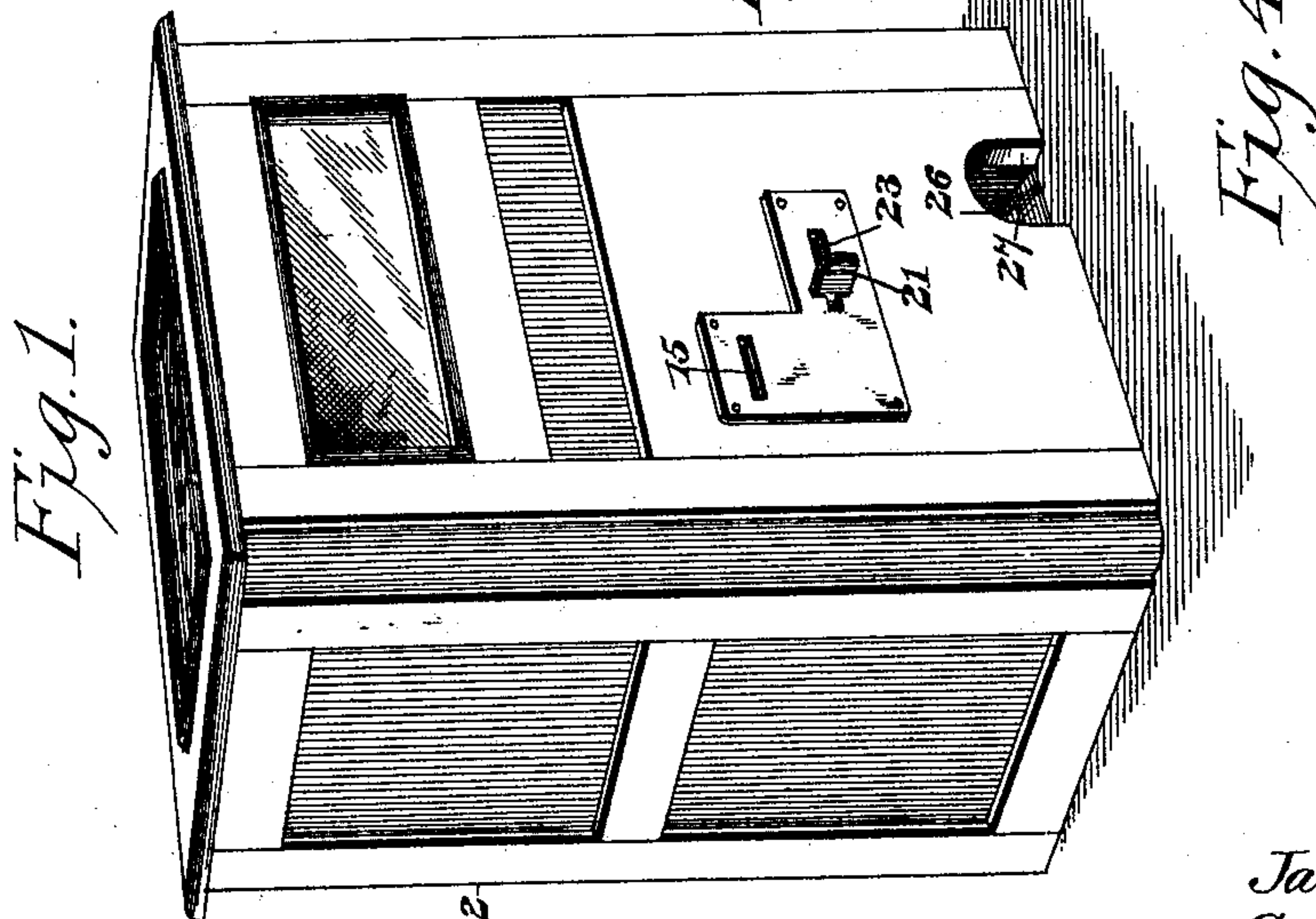
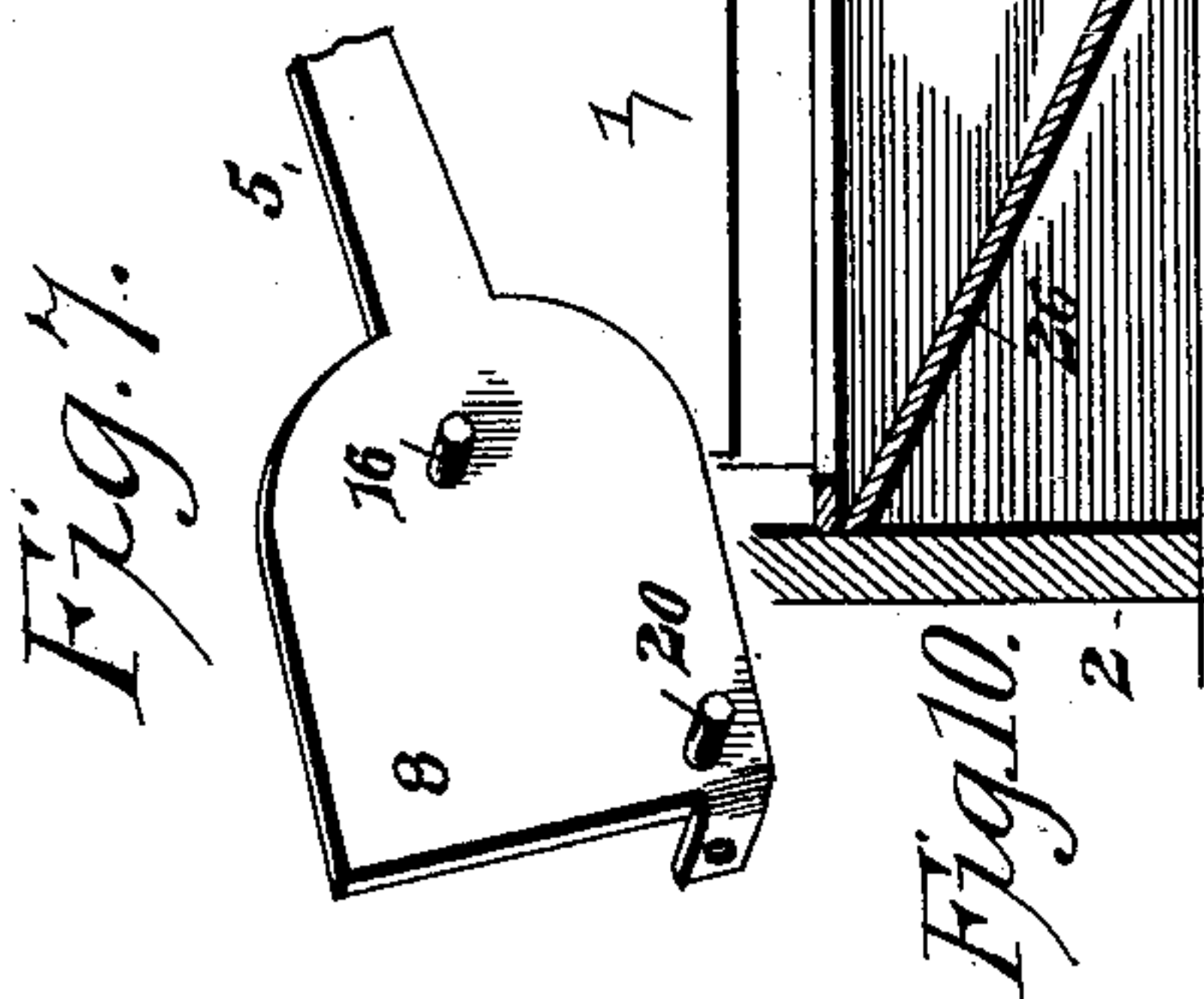
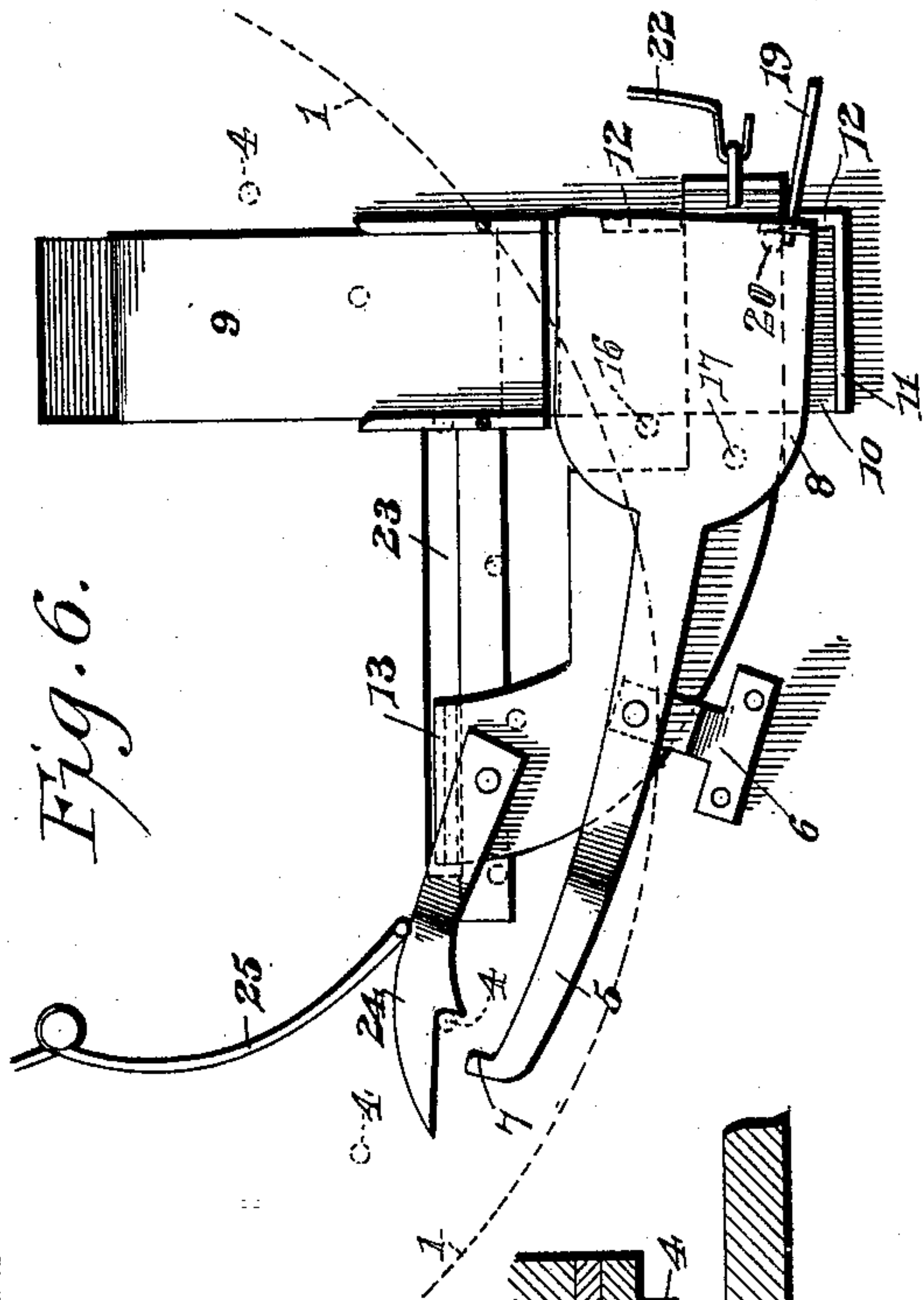
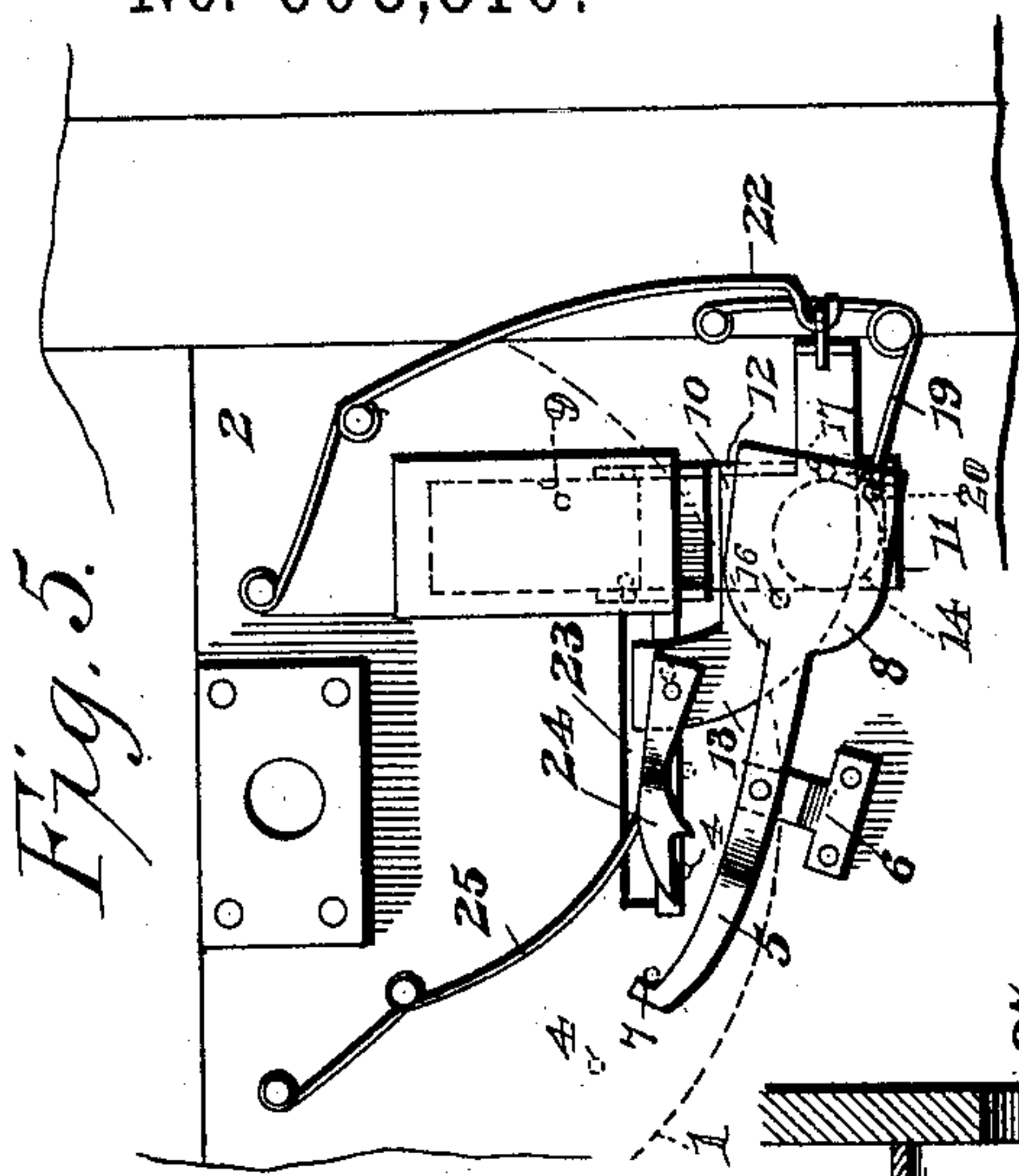
(No Model.)

2 Sheets—Sheet 1.

J. R. BOWLING & G. W. GILLILAND.
COIN OPERATED VENDING APPARATUS.

No. 603,810.

Patented May 10, 1898.



Witnesses

James H. McElathram

By their Attorneys,

J. F. Riley

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 3.

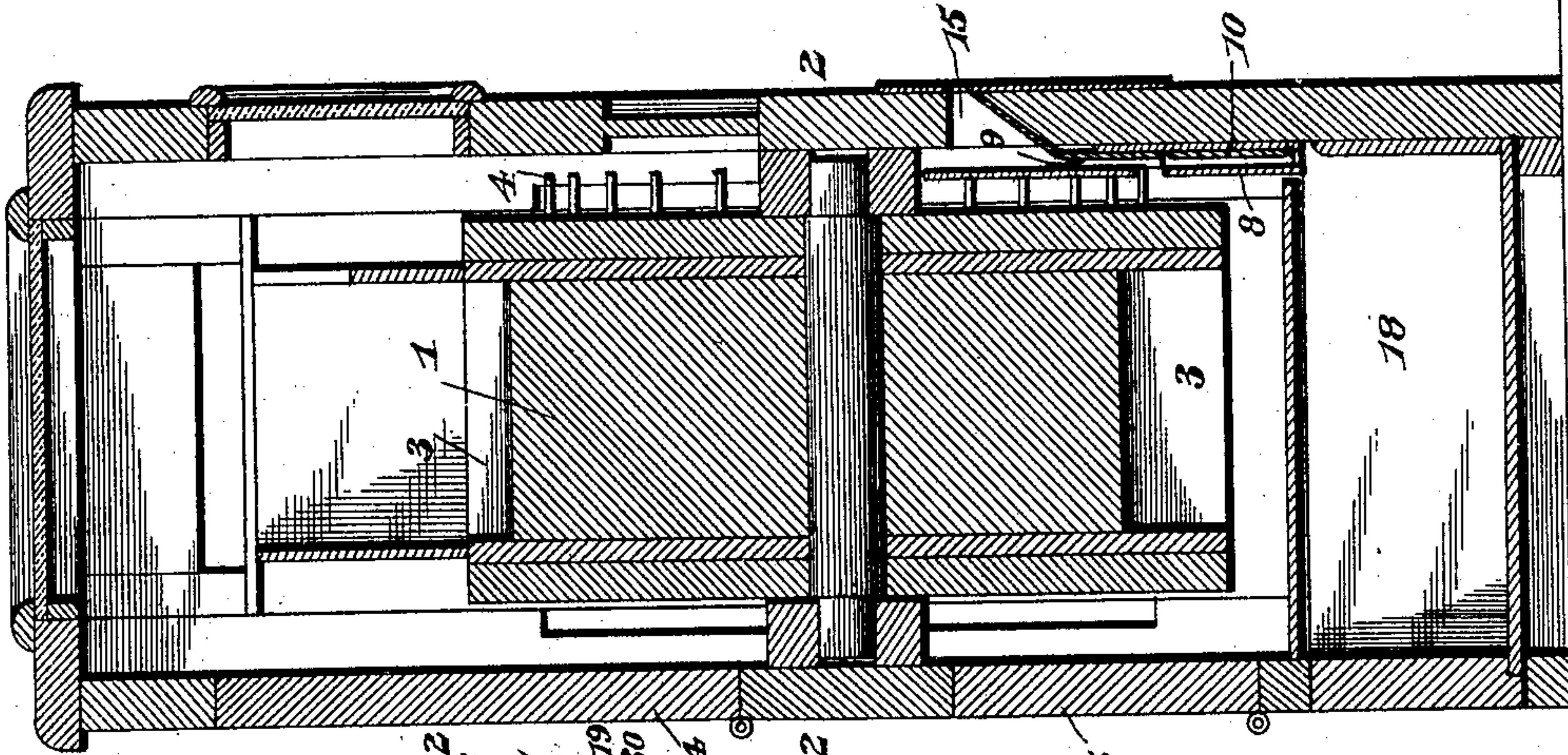


Fig. 9.

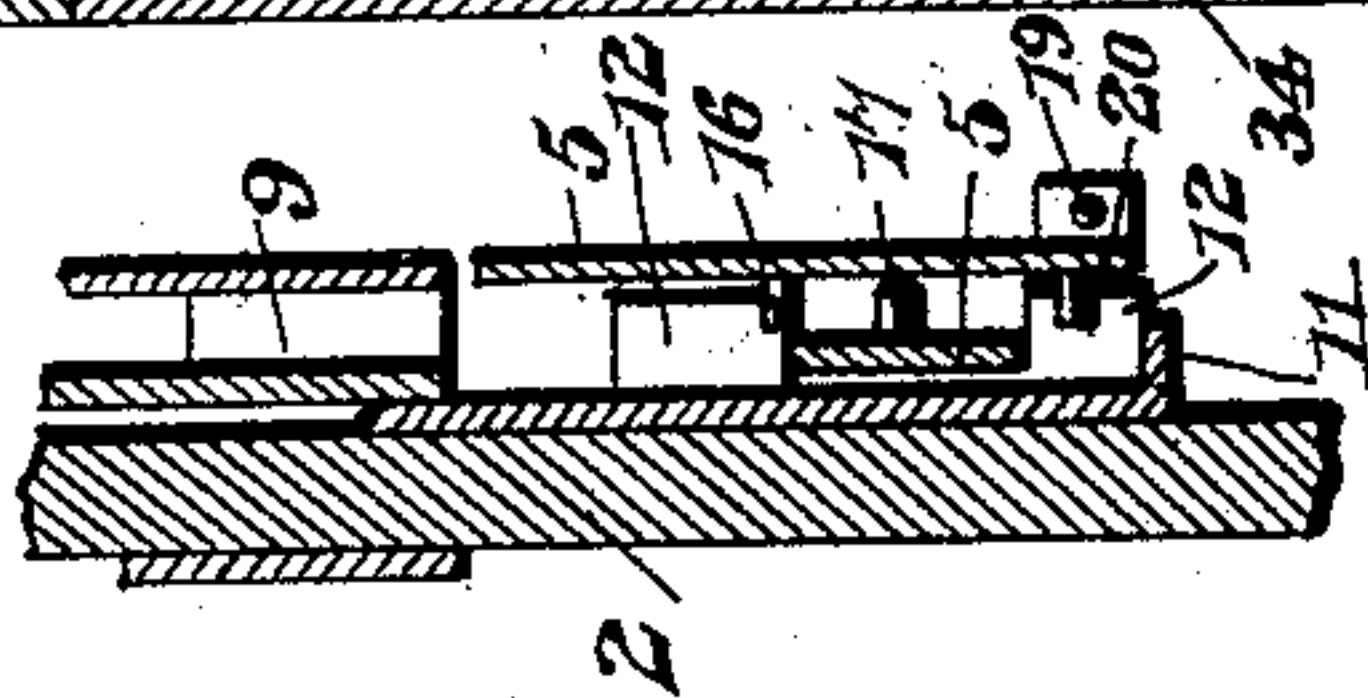


Fig. 2.

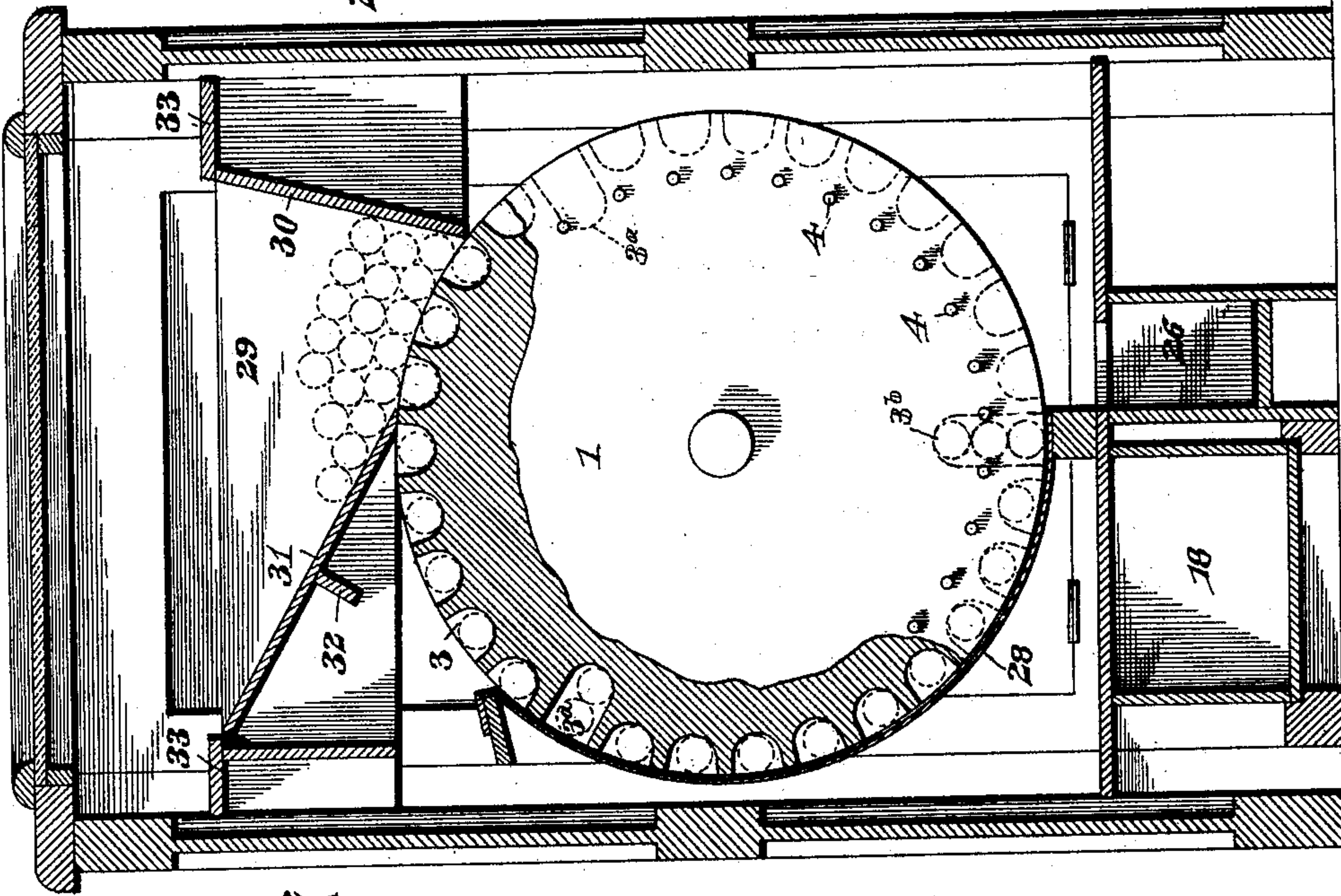
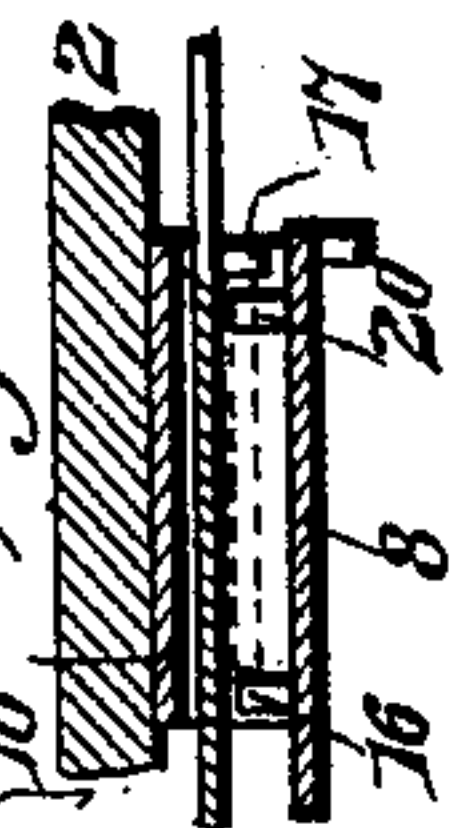


Fig. 8.



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UNITED STATES PATENT OFFICE.

JAMES R. BOWLING AND GEORGE W. GILLILAND, OF MEREDOSIA, ILLINOIS.

COIN-OPERATED VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 603,810, dated May 10, 1898.

Application filed October 23, 1897. Serial No. 656,165. (No model.)

To all whom it may concern:

Be it known that we, JAMES R. BOWLING and GEORGE W. GILLILAND, citizens of the United States, residing at Meredosia, in the county of Morgan and State of Illinois, have invented a new and useful Coin-Operated Vending Apparatus, of which the following is a specification.

The invention relates to improvements in coin-operated vending apparatus.

The object of the present invention is to improve the construction of coin-operated vending apparatus and to provide a simple and comparatively inexpensive device designed for selling cigars and adapted for delivering one or more cigars to a purchaser.

The invention consists in the construction, novel combination, and arrangement of parts, as hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of a cigar-vending apparatus constructed in accordance with this invention. Fig. 2 is a vertical sectional view of the same, taken longitudinally of the wheel or receptacle. Fig. 3 is a similar view taken transversely of the same. Fig. 4 is a detail sectional view illustrating the construction and arrangement of the push-bar and the coin-operated lever. Figs. 5 and 6 are detail views of the same, illustrating the position of the parts at the beginning and end of the actuating movement of the push-bar. Fig. 7 is a detail view of the rear or enlarged end of the coin-engaged lever. Figs. 8 and 9 are detail sectional views of the push-bar and the coin-engaged lever. Fig. 10 is a detail sectional view illustrating the arrangement of the discharge-chute.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a wheel or drum journaled in suitable bearings of a casing 2, provided at its periphery with a series of pockets 3 for the reception of cigars or other articles to be vended and having at its front face an annular series of projecting pins 4. The pins 4 are successively engaged by a lever 5, fulcrumed between its ends on a suitable support or bracket 6 and provided at one end

with a tooth 7, which when in engagement with one of the pins of the wheel or drum locks the latter against rotation. The other end 8 of the lever is enlarged and arranged at the lower terminal of a coin-chute 9, opposite a plate 10, which is provided at its bottom and outer edge with flanges 11 and 12.

The plate 10, which is provided at its outer vertical flange 12 with an opening, forms a guide and support for a reciprocating push-bar 13, arranged parallel with the lever 5 and spaced therefrom to provide an opening for the reception of a coin 14. The upper end of the coin-chute is arranged at a slot 15 of the casing, and its lower end terminates directly above the space between the lever and the push-bar in order to deliver the coin in the said space.

When the coin 14 is arranged in the space between the lever and the push-bar, it is supported by the horizontal flange 11 of the plate 10, and it is located in rear of a horizontal projection 16, which is arranged near the upper edge of the enlarged end of the lever. The coin is adapted to be engaged and moved forward by a horizontal pin 17 of the push-bar, and such forward movement of the coin lifts the lever through its engagement with the pin 16, carrying the engaging tooth of the lever away from the adjacent pin of the wheel or drum, thereby releasing the latter and enabling the same to be partially rotated by the push-bar. The pin 17 of the push-bar engages the nickel at a point opposite the center thereof and carries the same beyond the horizontal supporting-flange 11, so that the coin will fall into a drawer or receptacle 18.

The enlarged end 8 of the lever is provided with a perforated ear, which is engaged by a spring 19, for holding the tooth 7 in engagement with a pin of the wheel or drum, and the downward movement of the enlarged end 8 of the lever is limited by a horizontal pin or projection 20, located above and normally bearing against the horizontal flange 11 of the plate 10. The pin or projection 20 forms a stop and limits the downward movement of the enlarged end 8 of the lever 5.

The push-bar 13, which is provided with an operating-handle 21, is normally held retracted and is returned to its initial position

after operation by means of a spring 22, secured at one end to the front of the casing, and having its other end connected with the push-bar at one end thereof. The handle 21, which is provided with a thumb-plate, extends outward through a slot 23 of the front of the casing and has its movement limited by the same.

The wheel during its forward rotation is engaged by an actuating-pawl 24, pivoted at one end to the push-bar adjacent to the handle thereof and provided at its engaging end with a notch or shoulder to receive a pin 4. The push-bar has a slight movement before the shoulder of the actuating-pawl engages the adjacent pin 4 sufficient to operate the lever and release the wheel. A spring 25, which is mounted on the front of the casing, is provided at its free end with an arm and bears against the upper edge of a pawl 24 for holding the same firmly against a pin 4, and after actuating the wheel the pivoted pawl is adapted to slide backward over the adjacent pin in returning to its initial position.

The receptacles 3 may be of a size to contain a single cigar or they may be deepened, as shown at 3^a and 3^b, to receive two or three cigars, and although the apparatus is designed to be operated by a nickel, yet it may be constructed for operation by any other coin. The receptacles or pockets of the wheel are carried successively over an inclined discharge-chute 26, which is arranged at an opening 27 of the casing, and the cigars are retained within the pockets, which are open, by a flexible strip or apron 28, secured to transverse cleats of the casing and arranged on the periphery of the wheel over the full pockets thereof.

The cigars are supplied to the pockets of the wheel from a box by means of an oblong frame 29, guided within the casing by the vertical corner-posts thereof and resting upon the top of the wheel, and the sides of the frame have their lower edges curved to conform to the curve of the periphery of the wheel. By supporting the frame 29 directly upon the wheel it is always in proper position with relation to the pockets thereof, and it also serves as a tension device by creating friction and preventing the wheel from being rotated rapidly. The object of the friction device or brake is to prevent the pegs or pins 4 from being loosened by the jar which would result if the wheel were permitted to rotate rapidly. One end 30 of the frame 29 is rigid and is disposed substantially vertical, inclining slightly downward and inward and terminating over the wheel, and the other end 31, which is hinged at the top to the frame, has a long gradual slant and rests upon a transverse bar 32. By this construction the cigars are directed to the pockets, which are positively filled, and there is no liability of the wheel containing any blanks as long as there are cigars in the apparatus. The frame is provided at the ends of the casing with trans-

verse bars 33, secured to the upper edges of the sides of the frame and projecting laterally therefrom, and these projecting ends fit between the corner-posts of the casing and maintain the frame in proper position.

The top of the casing is designed to be provided with a transparent face, and also the front, as shown, and the back of the casing has upper and lower doors 34 and 35. The cash drawer or receptacle, which is provided with suitable locking mechanism, is opened from the back of the casing.

The invention has the following advantages:

The cigar-vending apparatus is simple and comparatively inexpensive in construction. It is adapted to deliver to a purchaser one or more cigars, and the pockets at the periphery of the wheel are positively filled, so that there is no danger of blanks while there are cigars in the apparatus.

The pins or projections of the push-bar and the coin-operated lever are arranged so that only a coin of the proper size will effect an operation of the apparatus.

The oblong frame is adapted to operate as a brake and prevent the wheel from rotating rapidly, so that the pins of the wheel will not be loosened by the jar which would result were the wheel permitted to rotate freely, and by this construction the wheel can be made of wood without impairing the durability of the mechanism.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

What we claim is—

1. In an apparatus of the class described, the combination of a casing, a wheel journaled within the same and provided at its periphery with pockets adapted for the reception of cigars, coin-operated mechanism for actuating the wheel, and a frame resting upon the wheel, and guided in the casing and adapted to direct cigars into the pockets, substantially as and for the purpose described.

2. In an apparatus of the class described, the combination of a casing, a wheel journaled within the same and provided at its periphery with pockets adapted for the reception of cigars, coin-operated mechanism for actuating the wheel, and an oblong frame resting upon the wheel, provided at one end with a rigid inclined wall and having at its other end a hinged wall disposed at an inclination, said oblong frame being guided in the casing, substantially as described.

3. In an apparatus of the class described, the combination of a wheel having pockets and provided at one of its faces with projecting pins, a lever fulcrumed between its ends, having one end engaging the pins of the wheel and adapted to have its other end engaged by a coin to release the wheel, and a push-bar adapted to engage the coin and carry the same into engagement with the lever, said push-bar

being provided with means for actuating the wheel when the lever is thrown out of engagement with the same, substantially as described.

5 4. In an apparatus of the class described, the combination of a wheel provided at one of its faces with projecting pins, a lever engaging one of the pins of the wheel and provided with a lateral projection arranged to be engaged by a coin, whereby the lever is swung away from the wheel, and a push-bar adapted to actuate the wheel and provided with a pin or projection for engaging the coin to carry the same into contact with the projection of the lever, substantially as described.

15 5. In an apparatus of the class described, the combination of a wheel provided with pockets, a lever engaging the wheel and locking the same against rotation, and a push-bar provided with means for actuating the wheel and arranged to carry a coin into engagement with the lever, whereby the latter is carried away from the wheel to release the same, substantially as described.

25 6. In an apparatus of the class described, the combination of a casing having a coin-chute, a wheel mounted within the casing and provided with pockets, a push-bar mounted at the lower end of the coin-chute and provided with a pawl for engaging the wheel, and a lever fulcrumed between its ends, engaging the wheel at one end and having its other end arranged at the lower end of the coin-chute, adjacent to the push-bar, to receive a coin between it and the same, said lever being provided with means for throwing it out of engagement with the wheel when

it is engaged by a coin, substantially as described.

7. In an apparatus of the class described, 40 the combination of a casing, a wheel provided with pins at one of its faces, a coin-chute, a lever fulcrumed between its ends, engaging one of the pins and provided at its other end with a projection adapted to be engaged by a coin, a push-bar spaced from the lever and adapted to carry a coin into engagement with the said projection, springs for returning the push-bar to its initial position and for holding the lever normally in engagement with 50 the wheel, and a spring-pressed pawl pivotally mounted on the push-bar and engaging one of the pins of the wheel for rotating the latter, substantially as described.

8. In the apparatus of the class described, 55 the combination of a casing, a coin-chute, a wheel, a plate arranged at the bottom of the coin-chute and provided with a horizontal flange for supporting a coin, a push-bar adapted to engage the wheel and provided with 60 means for advancing the coin, and a lever locking the wheel against rotation, provided with a projection to be engaged by a coin and having a stop normally bearing against the plate, substantially as described. 65

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JAMES R. BOWLING.
GEORGE W. GILLILAND.

Witnesses:

THOMAS BURRUS,
CHARLES H. WILLIAMS.