

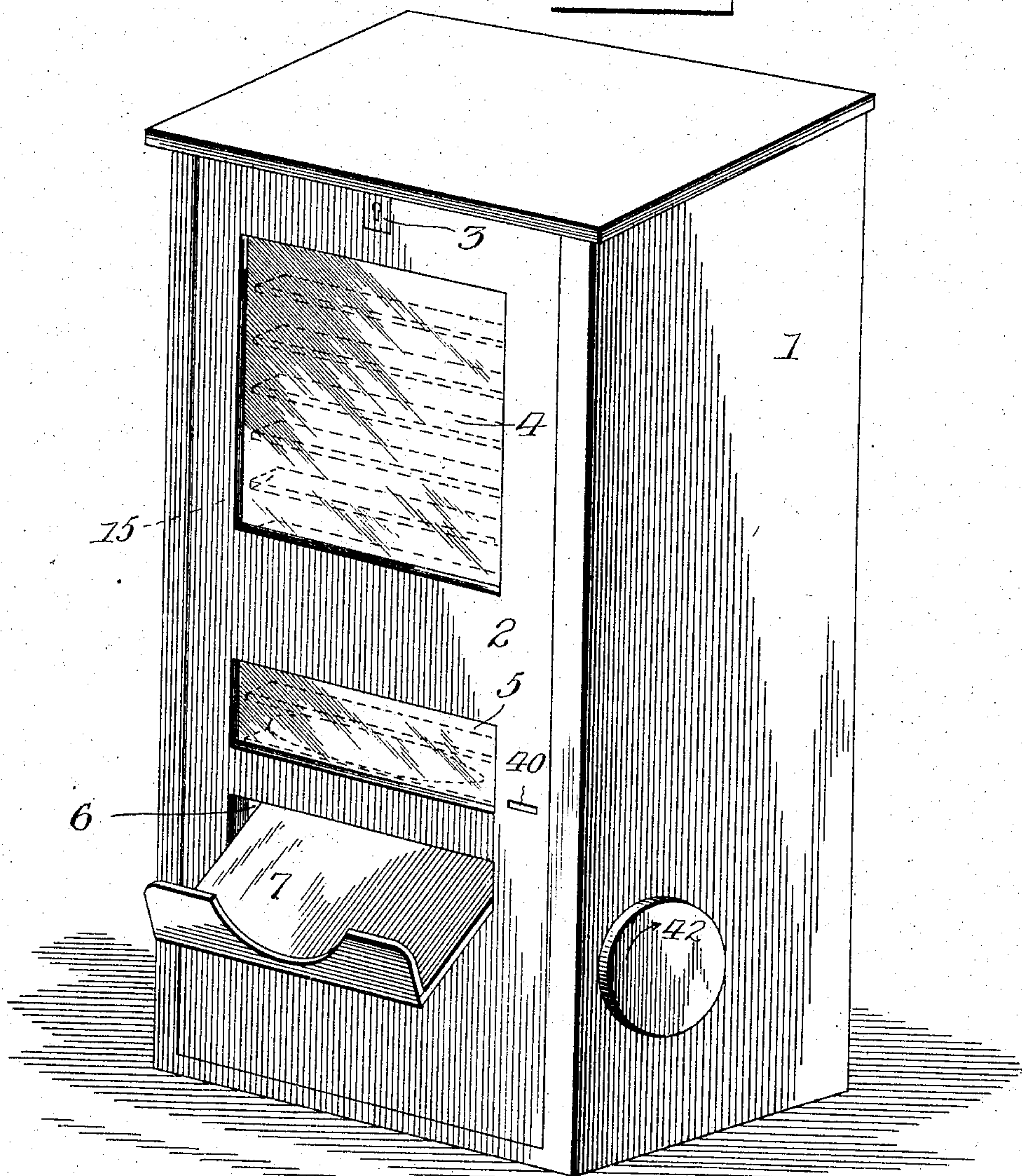
No. 780,591.

PATENTED JAN. 24, 1905.

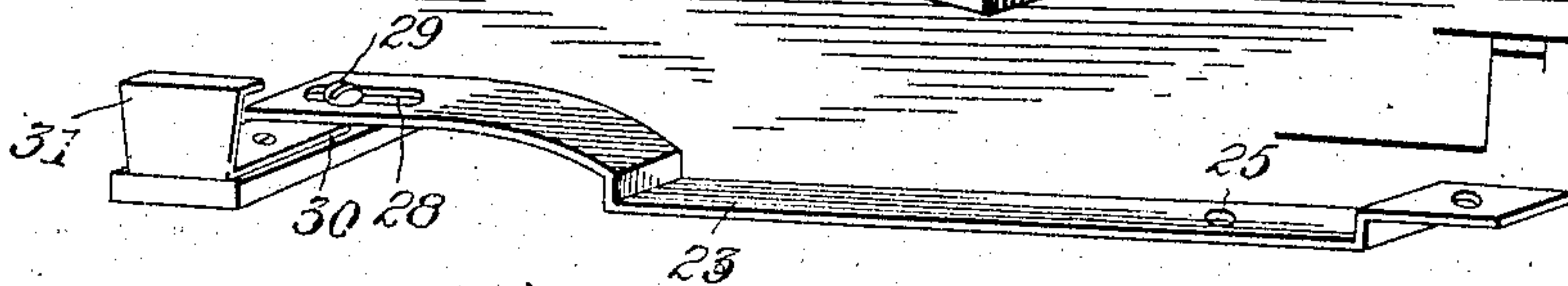
P. E. BEAUDRY.
VENDING MACHINE.
APPLICATION FILED MAR. 7, 1904.

2 SHEETS—SHEET 1.

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Witnesses:

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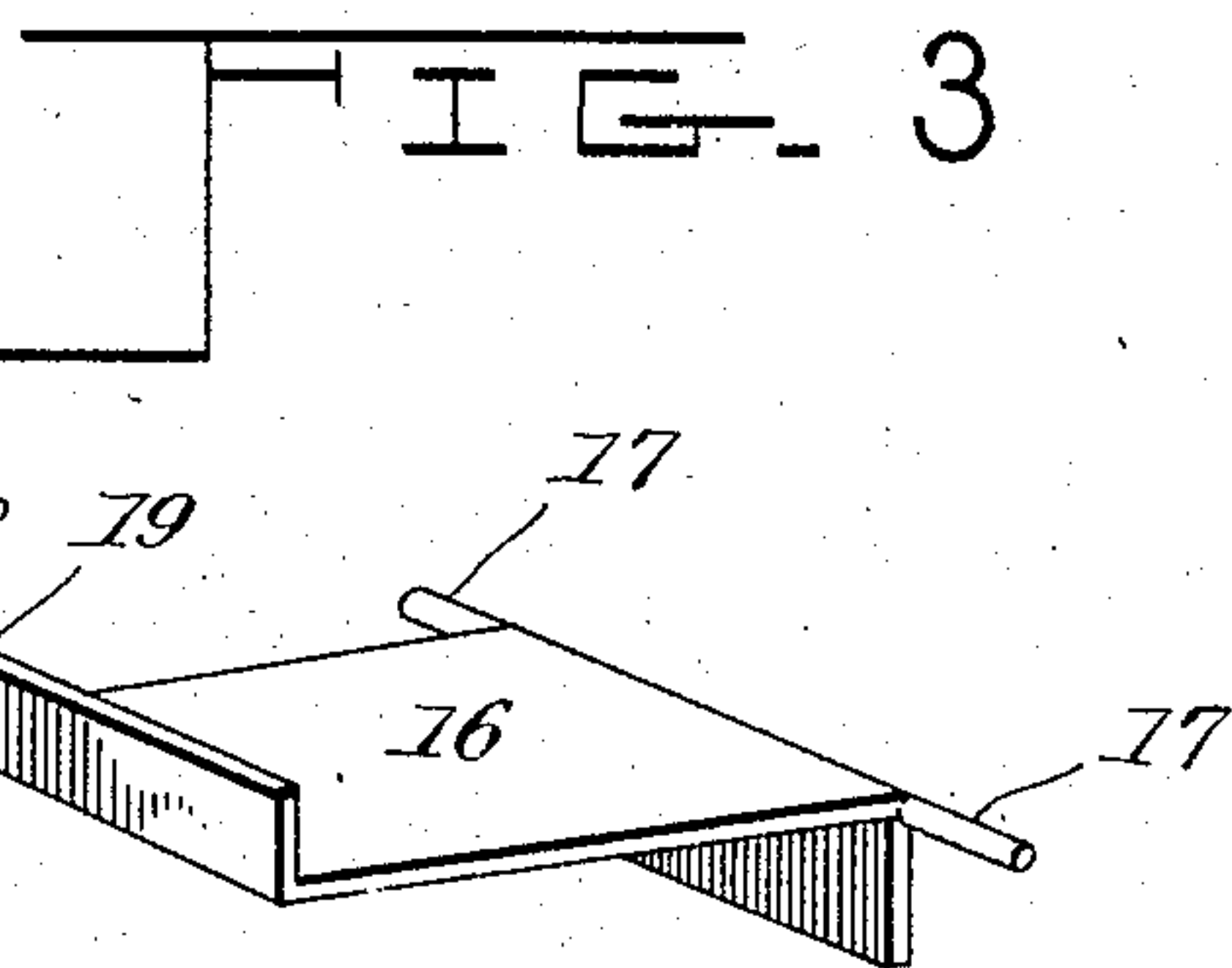
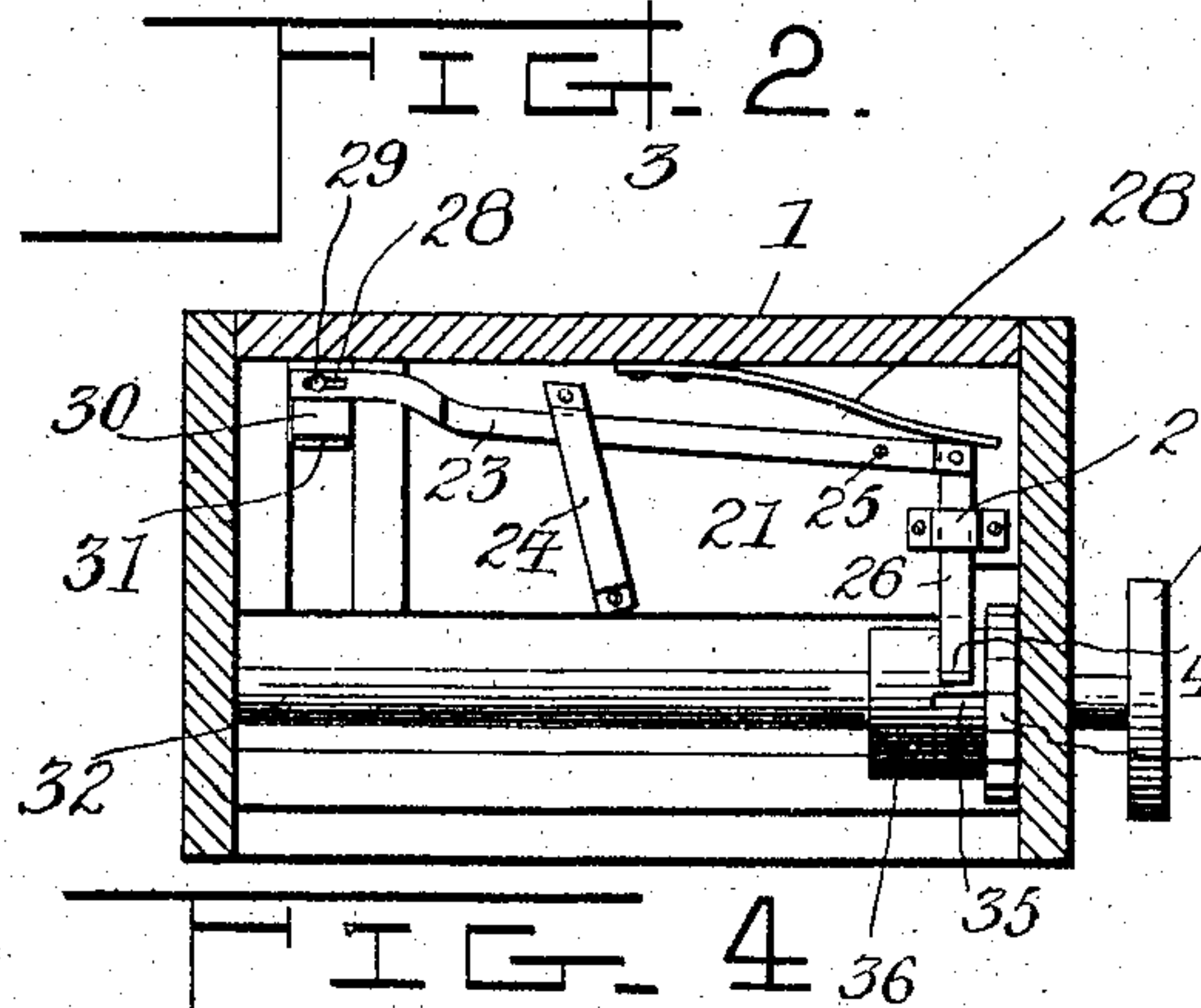
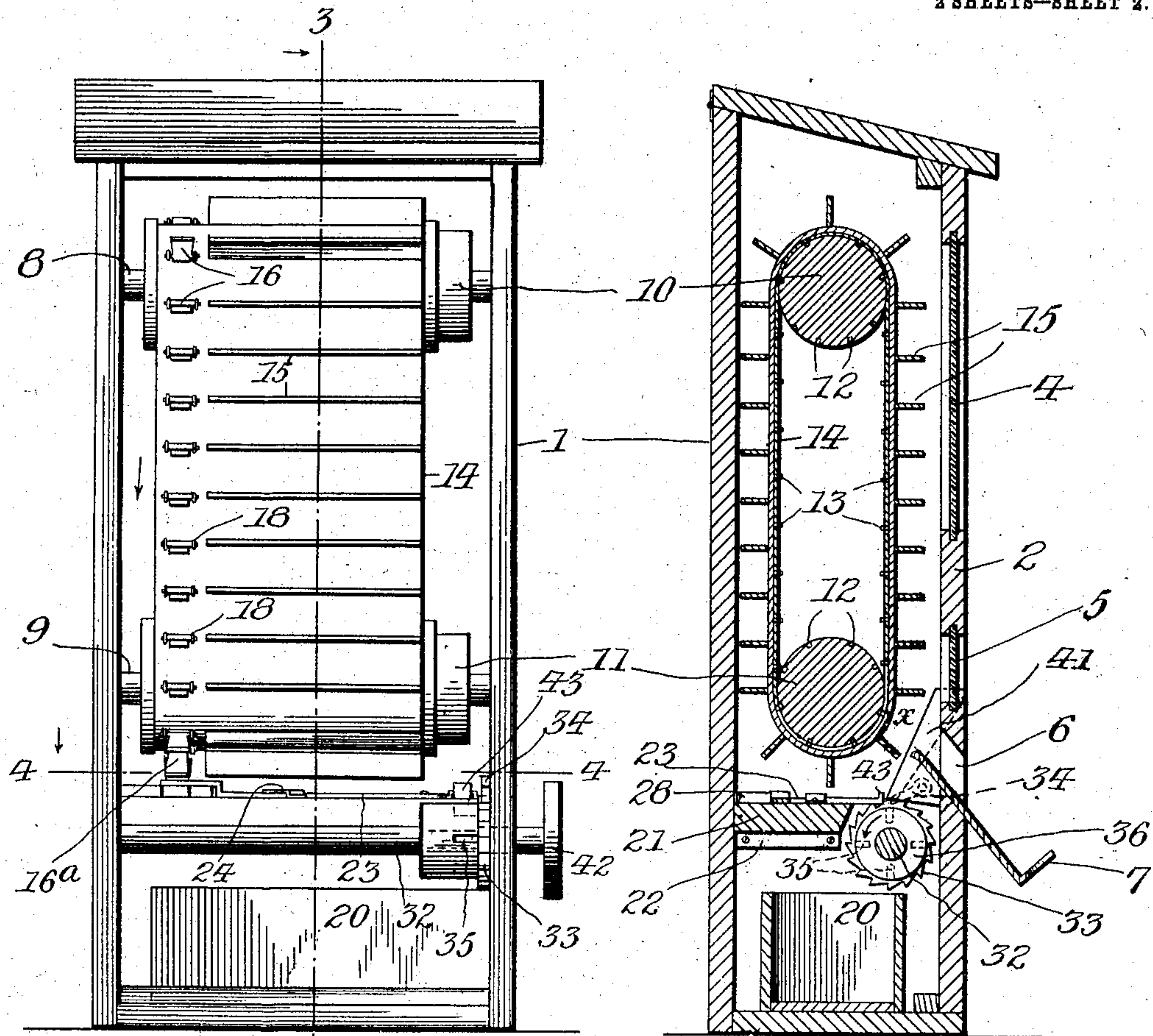
Attorneys

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2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

PIERRE EDOUARD BEAUDRY, OF MONTREAL, CANADA.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 780,591, dated January 24, 1905.

Application filed March 7, 1904. Serial No. 197,385.

To all whom it may concern:

Be it known that I, PIERRE EDOUARD BEAUDRY, a subject of the King of Great Britain, residing in the city and district of Montreal, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Vending-Machines; and I do hereby declare that the following is 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 new and useful improvements in vending-machines of the class adapted for vending such articles as cigars, lead-pencils, and single articles of various kinds and also for vending packages of vendible commodities which may be supported therein and is of the coin-actuated class of vending-machines which are so constructed that upon the insertion of a coin of predetermined value the mechanism is rendered operative and which when no coin is in position or when a coin other than of a predetermined size or value is in position will fail to operate.

The object of the invention is to provide a conveniently-disposed mechanism which will be simple in construction and possess but few operative parts which will be liable to become disarranged or fail to operate when required, the particular object of the present invention being to produce a machine for the purpose of vending cigars and other commodities, the particular invention consisting in certain features of novelty in the detail, construction, and arrangement thereof, all as hereinafter fully described, and specifically pointed out in the claims.

In the annexed drawings similar numerals of reference indicate corresponding parts in all the views, wherein—

Figure 1 is an elevational perspective showing my improved vending-machine in position ready for use. Fig. 2 is a front elevation with the face-plate removed. Fig. 3 is a vertical sectional view taken on the line 3 3 of Fig. 2 looking in the direction indicated by the arrow. Fig. 4 is a transverse sectional view on the line of 4 4 of Fig. 2 in the direction indicated by the arrow. Fig. 5 is an enlarged detached detail view of a pivoted hanger con-

nected with the conveyer shown in Figs. 2 and 3. Fig. 6 is an enlarged detail of the pivoted actuating-arm shown in Figs. 2 and 4 with its connected appurtenances.

Referring to the parts, 1 is a casing adapted for use as an inclosing means within which the operative parts of the mechanism are chiefly contained.

2 is a face-plate, which is preferably removable and which is secured in position upon the casing 1 by a suitable lock, as 3, the face-plate being provided with glass openings 4 and 5 and also having projecting through the discharge-opening 6 an apron 7, down which the vendible articles may fall or pass to the purchaser.

Within the casing 1 are mounted shafts 8 and 9, upon which shafts are supported drums 10 and 11, which drums are preferably provided with recesses 12 in each of said drums, said recesses being circumferentially disposed therein for the purpose of serving as seats for pins or projections 13 upon the conveyer-belt 14. (Best shown in Fig. 3.)

Upon the conveyer-belt 14 and arranged at suitable distances apart are shelves or supporting-seats 15, the distance between said shelves being regulated by the size of the article which it is desired shall be vended by the machine. Upon the belt 14 are also supported pivoted hangers 16, which are connected, by means of the pintles 17, with suitable clips 18, which engage with the belt 14 in such manner as to permit the hangers 16 to rock upon their said pintles 17 for the purpose hereinafter specified, while angular projections 19 on said hangers 16 are so disposed as to project rearwardly therefrom when the said hangers occupy their lowermost position, as indicated by 16^a in Fig. 2. In the lower portion of the casing 1 is a coin-receptacle 20, which may be of any convenient size or shape, as there is an abundance of room in the lower portion of the casing for such receptacle.

Above the coin-receptacle 20 is a horizontally-disposed partition 21, which is supported upon the walls of the casing 1 by brackets 22 engaging with the side walls of said casing. Pivottally supported upon the partition 21 is a lever 23, a loosely-engaging clip 24 serving

as a stop for said lever in its forward-and-backward movement, so as to regulate the thrust of said lever. The lever 23 is pivoted at 25, as shown in Fig. 4, and has pivotally connected therewith the forwardly-extending arm 26, which reciprocates within a clip 27, which clip is also connected with the said horizontally-disposed partition 21, while a spring, as 28, is connected with the rearward wall of the casing 1 and extends forwardly in such position as to bear against the lever 23 at approximately the pivotal connection of the arm 26 therewith, so as to hold said arm 26 normally in a forward position, as shown in Fig. 4.

The opposite end of the lever 23 is provided with a longitudinal slot 28, within which rides a pin 29, the said pin 29 being connected with an angular engaging member 30, having an upwardly-projecting flange 31, adapted to engage with the hangers 16, which are disposed at convenient intervals upon the surface of the conveyer-belt 14. Extending transversely of the casing 1 is a shaft 32, which shaft carries the ratchet 33, while a pawl 34, supported upon the side wall of the casing 1, is adapted to rest normally in engagement with said ratchet, the pawl and ratchet occupying such relation that the shaft 32 may be rotated in the direction indicated by the arrow in Fig. 3, but is held by the said pawl and ratchet against a return movement in the opposite direction. It will be understood that the shaft 32 may be a rotatable shaft, if desired, in which case a plurality of coin-pockets 35 (shown in full lines in Fig. 4 and in dotted lines in Fig. 3) may be radially disposed in the drum or enlargement 36 upon the shaft 32, or the said shaft 32 may be merely a rockable and non-rotatable shaft provided with only one of such coin-pockets, as may be desired, in which case the pawl and ratchet 34 and 33 may be dispensed with.

In operation the conveyer, comprising the belt 14 and partitions 15, is preferably filled with the articles which it is desired to vend, a single one of such articles resting in each of the pockets formed by said shelves 15. When no coin is inserted, the operative mechanism occupies the position shown in Fig. 4; but when a coin is inserted through the coin-slot 40 in the face-plate 2 such coin will ride down the coin-chute 41 (shown in Fig. 3) and drop into one of the radially-disposed pockets 35, whereupon the turnbutton 42 may be rotated in the direction indicated by the arrow thereon, whereupon the said coin, which will project slightly beyond the drum 36, will impinge the flange 43 on the reciprocatory arm 26. A continued rotation of the thumb-piece 42 will cause the said coin to project the said arm 26 rearwardly, thereby rocking the lever 23 upon its pivot 25 and projecting the engaging member 30 forwardly of the machine. In the forward movement of the member 30 it will ride under the hanger 16, which occupies

the lowermost position, the said hanger 16 riding upon its pintles until the engaging member 30 shall have passed forwardly of and beyond said hanger, whereupon the coin will have passed beyond the flange 43 of the rod 26 and will drop into the coin-receptacle 20 by a continued rotation of the shaft 32, whereupon the arm 26 being released from its engagement with said coin will be actuated by the spring 28, thereby returning the arm 26 to its forward position, at the same time rocking the lever 23 upon its pivot 25 and returning it to its normal position, during which return movement the flange 31 of the engaging member 30 will be engaged by the flange 19 of the hanger 16, and during the return movement of the member 30 this engagement will cause the conveyer to be moved one space in the direction indicated by the arrow in Fig. 2, thereby bringing one of the pockets in the conveyer to the position indicated by X in Fig. 3, in which position the partitions forming such pocket will be distended, thereby releasing the article gripped thereby and permitting it to fall through the opening 6 upon the delivery-chute 7, from which it may be removed by the purchaser. It will be evident that no cigar or other article will be delivered by the machine except after a complete forward-and-back movement of the lever 23, so that it will be impossible to secure more than one of such articles from the machine upon the insertion of a single coin, but that when a coin of the proper size to correspond with the proportions of the coin-pockets 35 and the flange 43 of the arm 26 is inserted a positive action of the delivery mechanism is always insured through the mechanism described. To insure a delivery of goods upon each insertion of a coin, the glass partitions 4 and 5 are provided in the face-plate 2, so that the purchaser may be able to inspect the conveyer and determine if a cigar is in position to be delivered by the machine upon insertion of a coin, and if upon inspection it is evident that the machine is not in position for such purpose the prospective purchaser will be able to save the intended purchase price of such article by reason of the said glass partitions or other transparent equivalents thereof.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A vending-machine comprising a casing,

a rotatable shaft provided with slots adapted to receive a coin, a pivoted lever, an arm on the lever disposed in the path of travel of a coin in one of said slots, an angular member 5 pivotally secured to one end of the lever, and a spring secured to the casing and arranged to bear against one end of the lever, in combination with a delivery mechanism embodying a pivoted hanger disposed in the path of 10 said angular member and arranged to be actuated by said lever.

2. A vending-machine comprising a casing, a rotatable shaft provided with slots adapted to receive a coin, a pivoted lever, an arm on 15 the lever disposed in the path of travel of a coin in one of said slots, an angular member

pivotally secured to one end of the lever, a spring secured to the casing and arranged to bear against the lever, and a clip arranged to limit the movement of the lever, in combination with a delivery mechanism embodying a 20 pivoted hanger disposed in the path of said angular member and having a right-angled flange and arranged to be actuated by said lever. 25

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

PIERRE EDOUARD BEAUDRY.

Witnesses:

LADISHAS LEDUE,
F. MYNARD.