

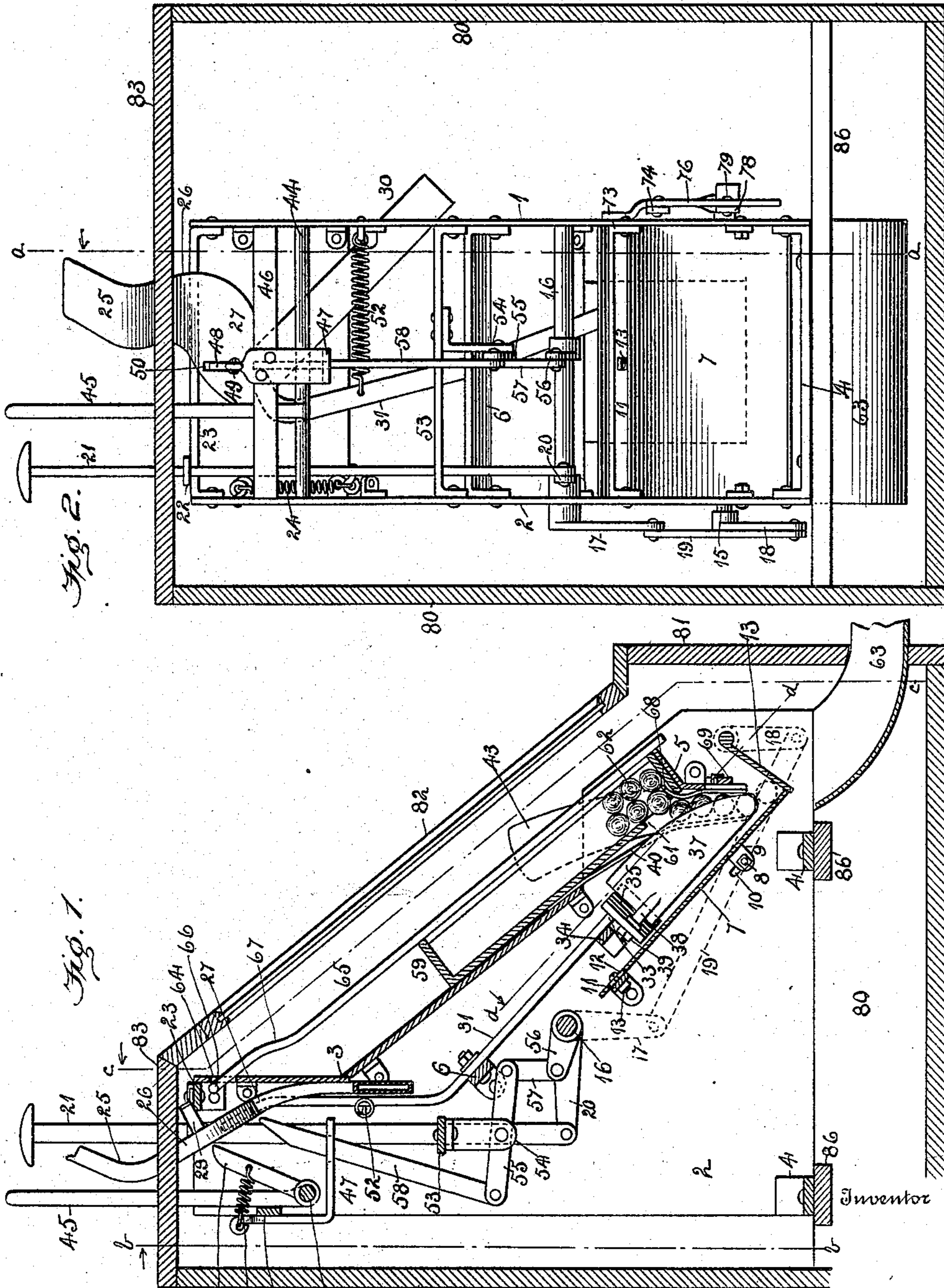
No. 885,685.

PATENTED APR. 21, 1908.

W. BUTLER.
CIGAR VENDING MACHINE.

APPLICATION FILED MAR. 18, 1907.

3 SHEETS—SHEET 1.



Witnesses
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Attorney

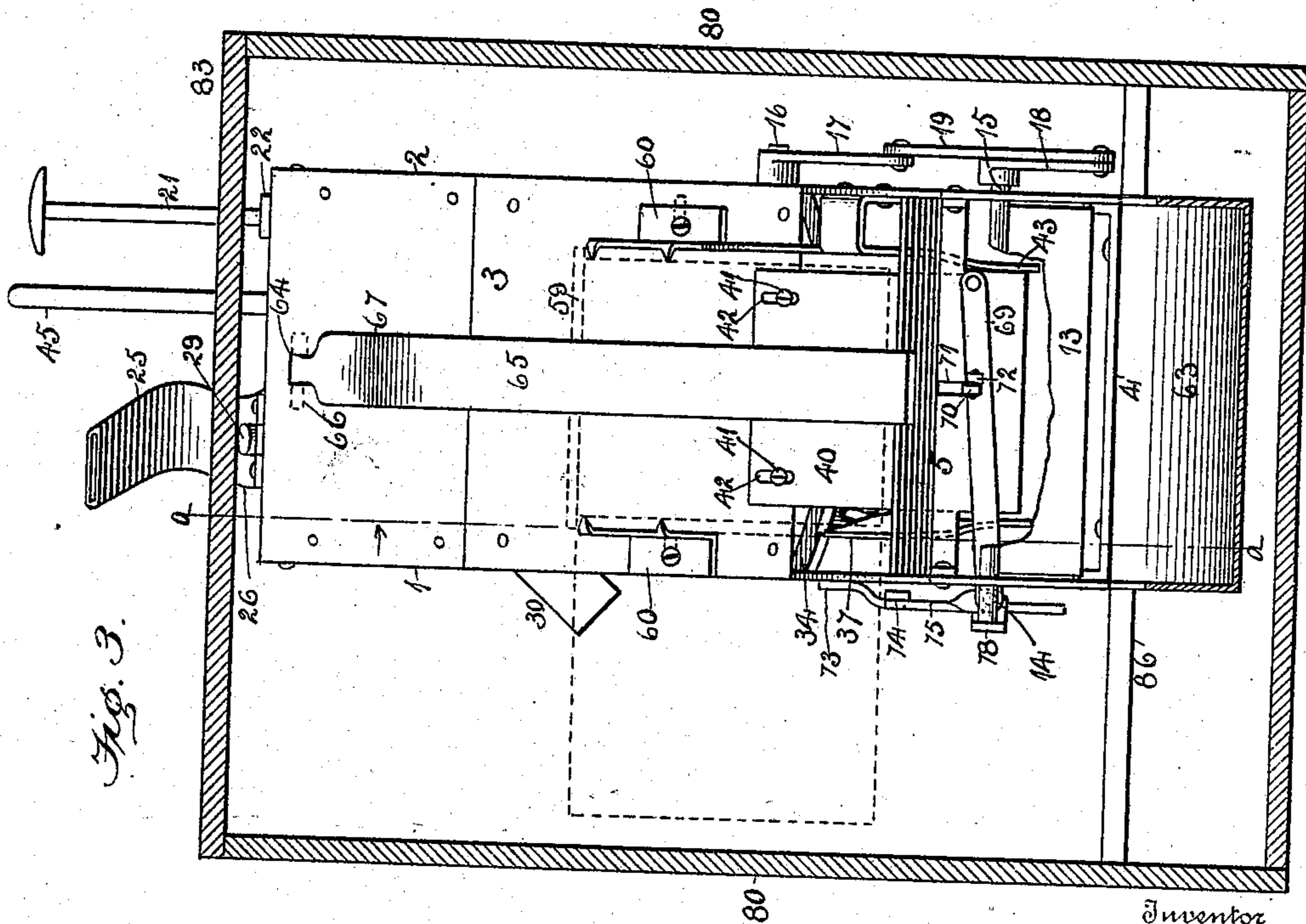
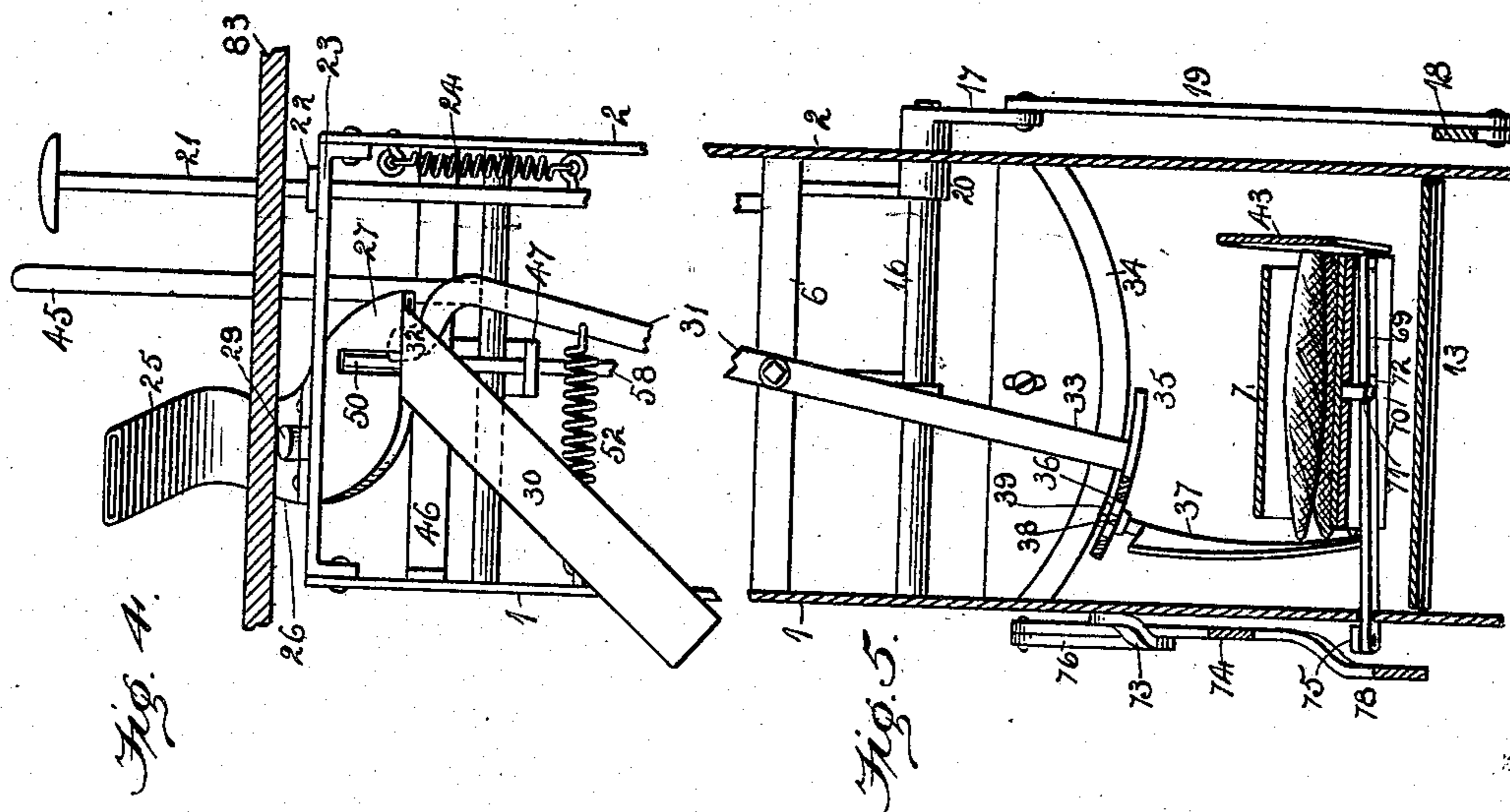
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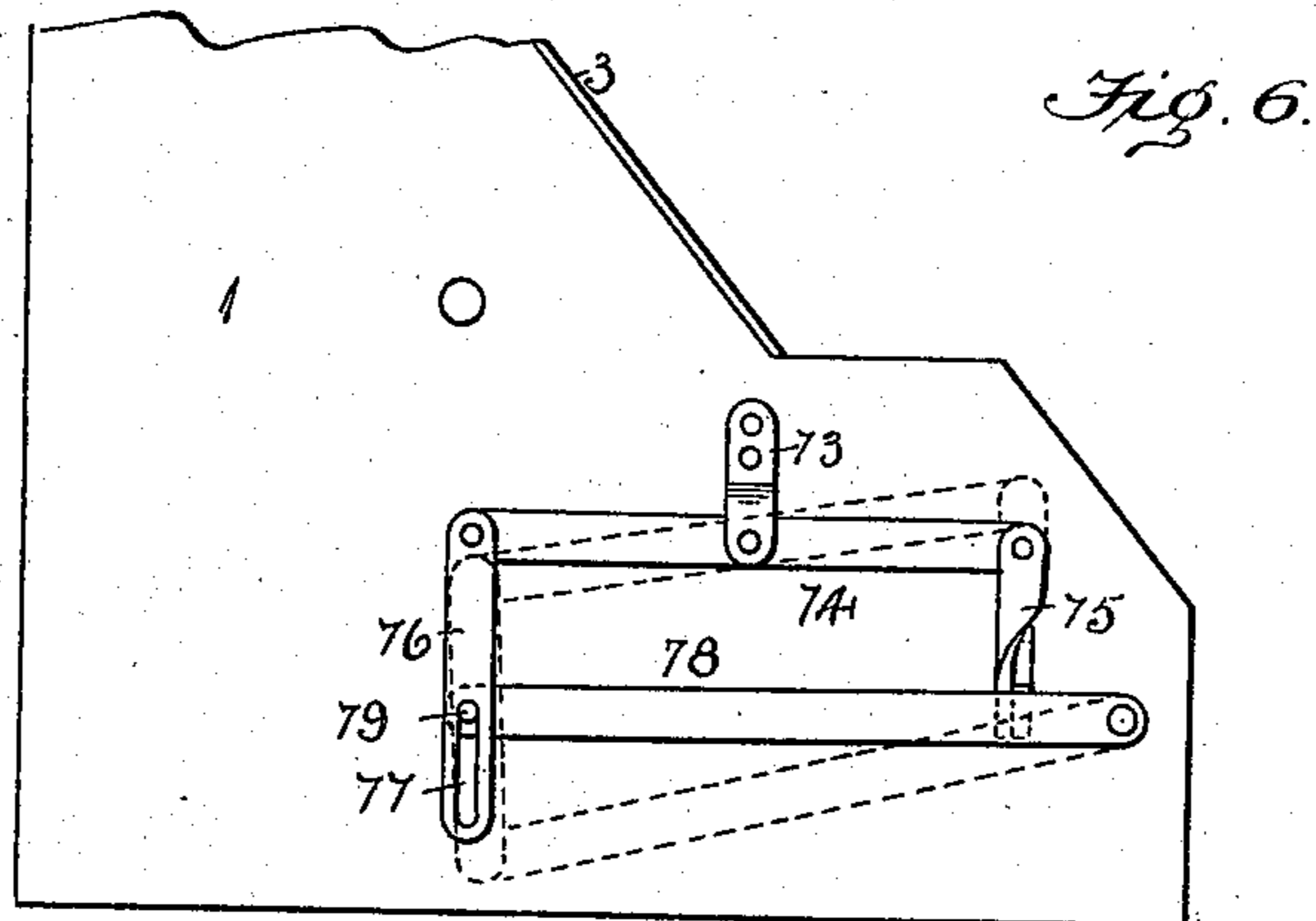


Fig. 7.

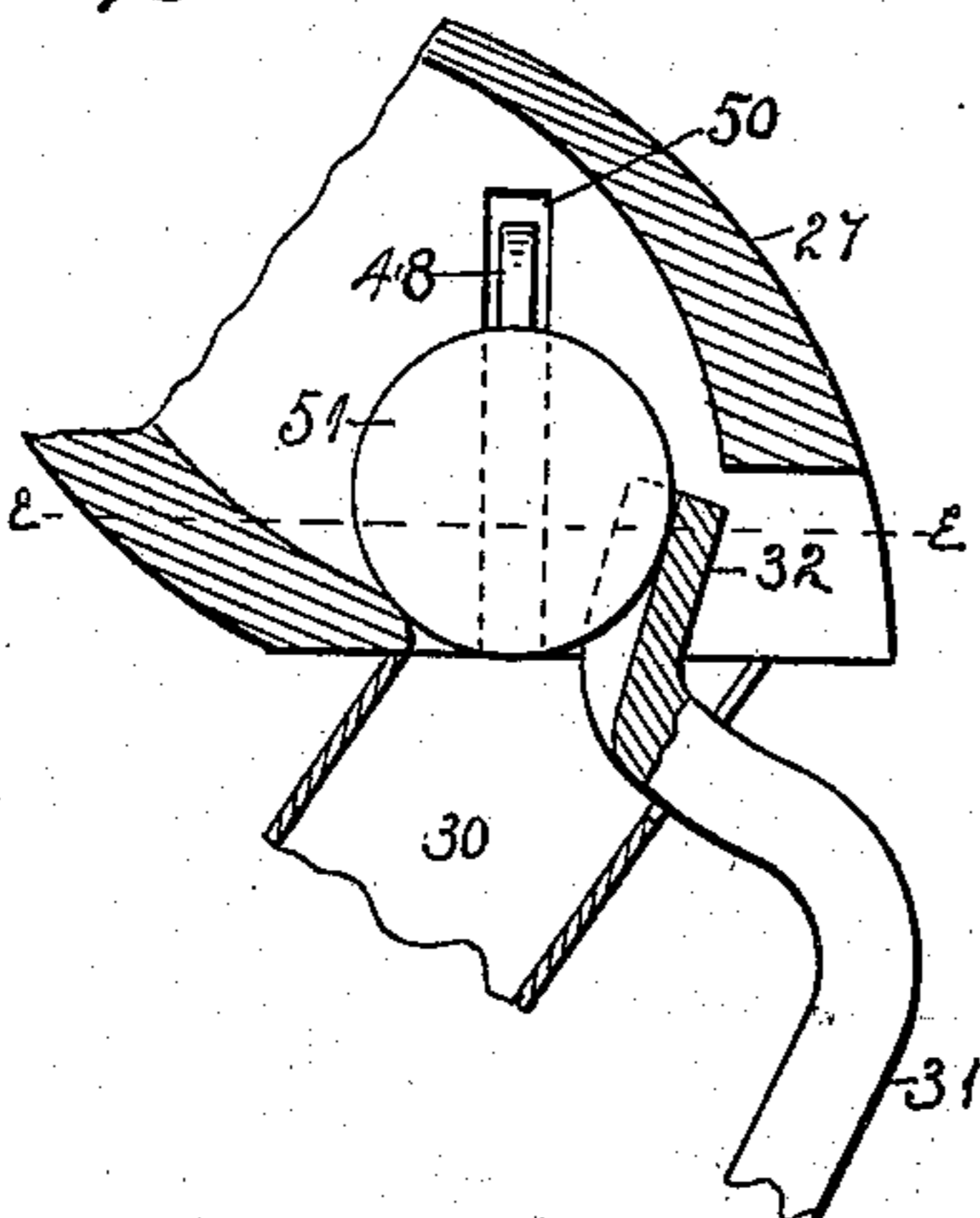


Fig. 8.

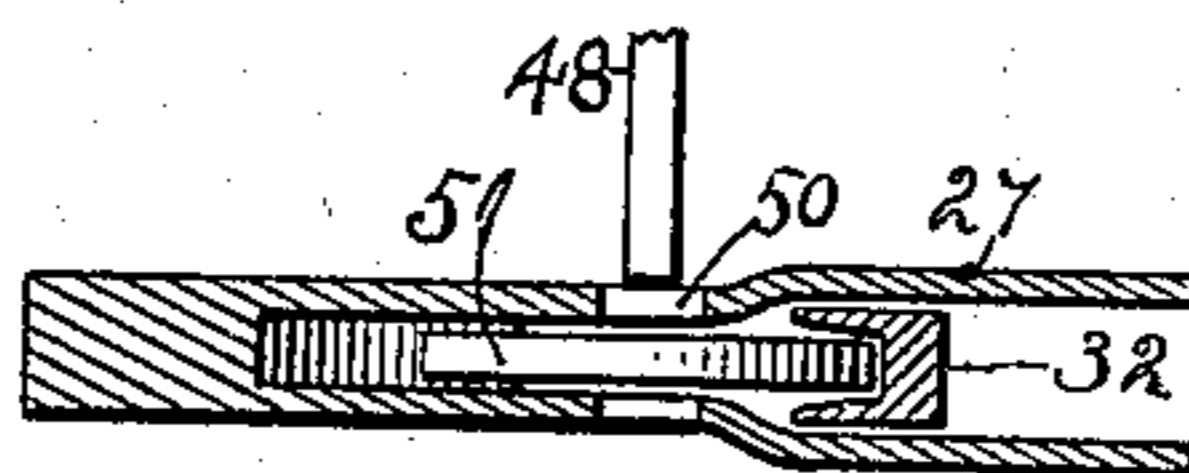


Fig. 9.

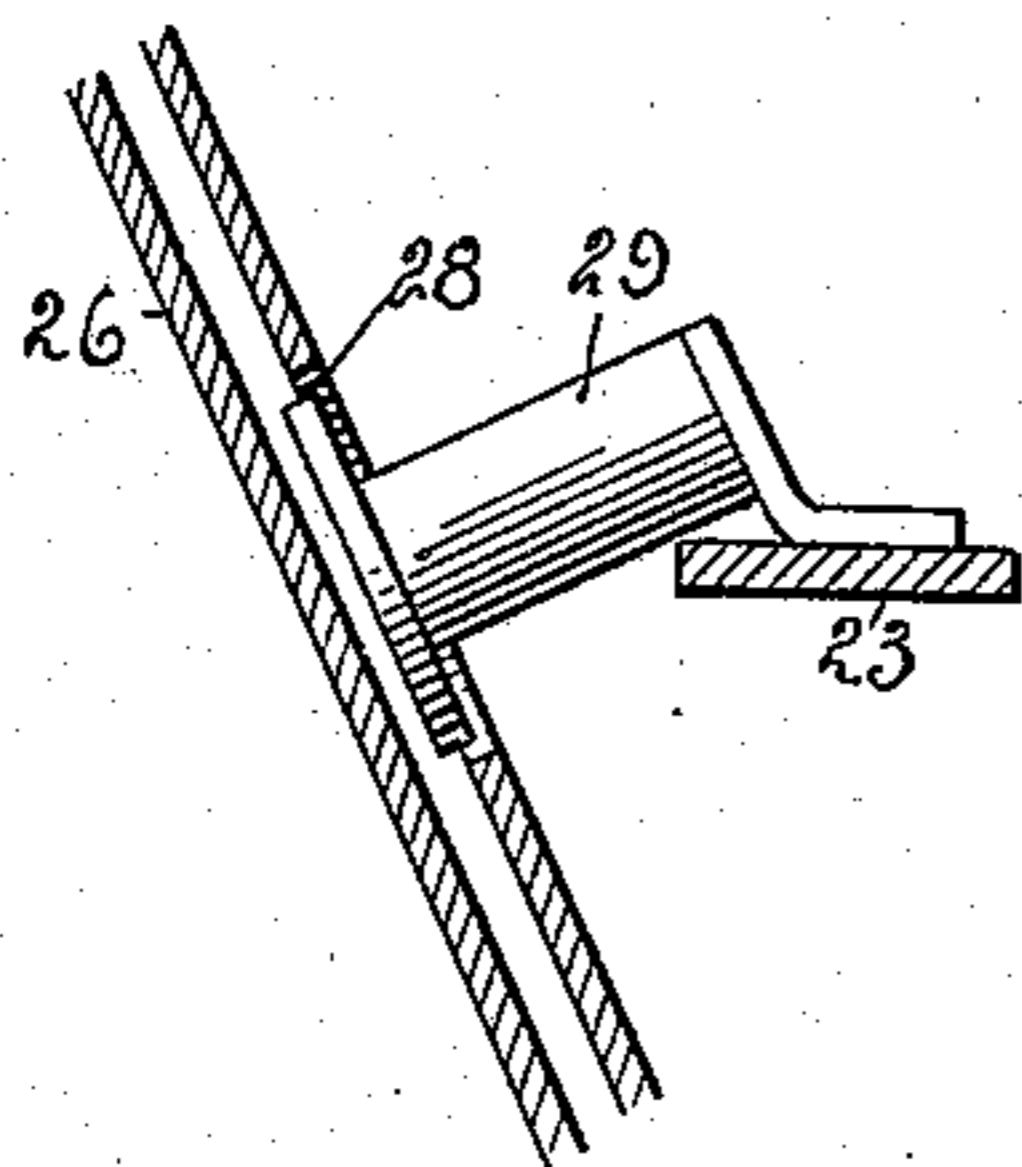
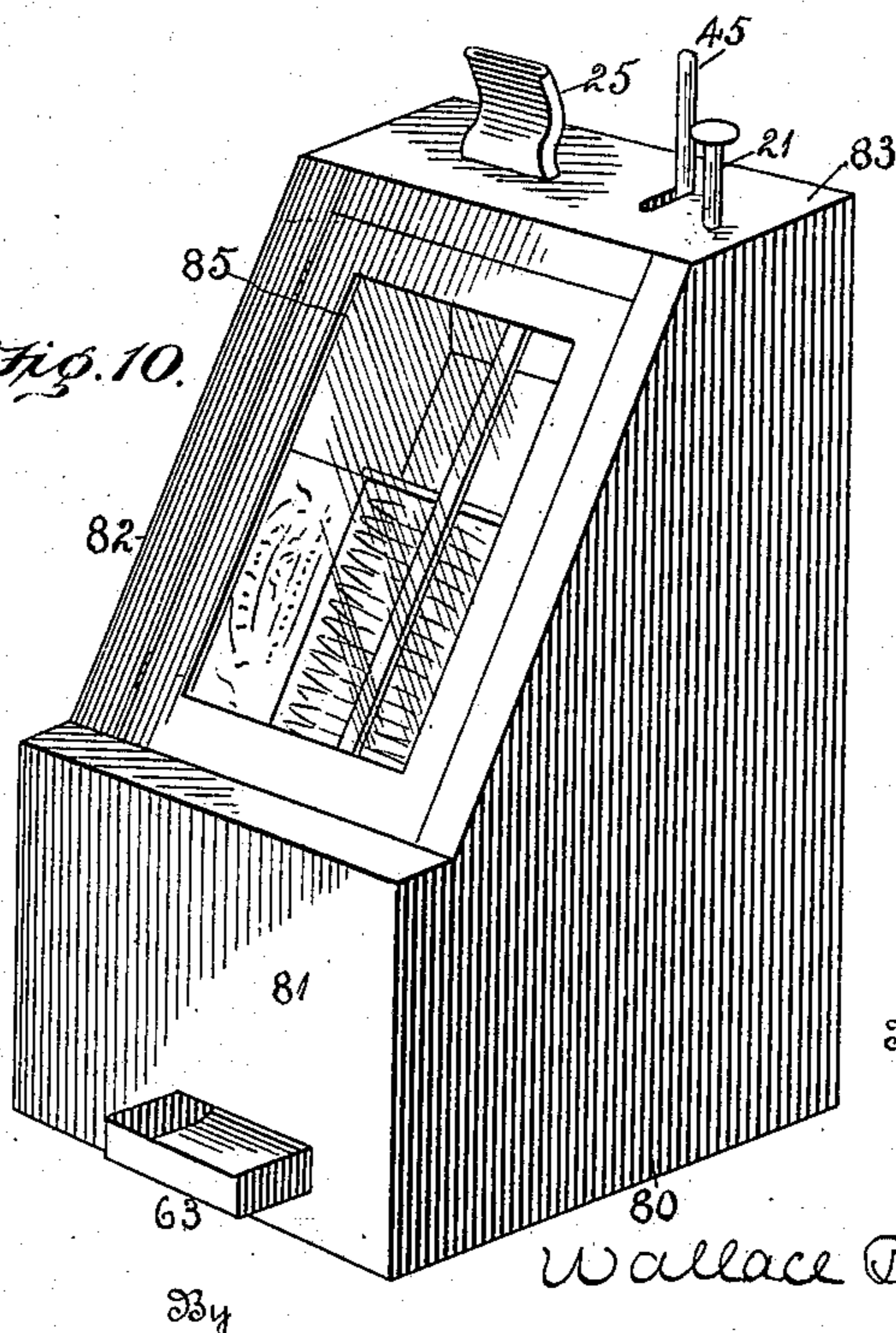


Fig. 10.



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UNITED STATES PATENT OFFICE.

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CIGAR-VENDING MACHINE.

No. 885,685.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed March 18, 1907. Serial No. 363,111.

To all whom it may concern:

Be it known that I, WALLACE BUTLER, a citizen of the United States, residing at Davis Junction, in the county of Ogle and State of Illinois, have invented certain new and useful Improvements in Cigar-Vending Machines, of which the following is a specification.

My improvements relate to coin-operated machines for delivering cigars direct from the box.

In the accompanying drawings Figure 1 is a vertical section on dotted line *a* Figs. 2 and 3. Fig. 2 is a vertical section on dotted line *b* Fig. 1. Fig. 3 is a section on dotted line *c* Fig. 1. Fig. 4 is a front elevation of the upper portion of the machine. Fig. 5 is a section on dotted line *d* Fig. 1. Fig. 6 is an outside elevation of the lower portion of the machine. Fig. 7 is a section in the lengthwise direction of the coin passage-way. Fig. 8 is a transverse section on dotted line *e* Fig. 7. Fig. 9 is a lengthwise section of a portion of the coin passage-way showing the permanent magnet for deflecting spurious coins. Fig. 10 is a perspective view of the casing containing the operative parts.

It is absolutely necessary in a coin operated machine for delivering cigars, that the box containing the cigars be placed in the machine in order that the purchaser may know the brand of cigar he is getting, otherwise, great deception might be practiced and the machines would soon fall into disuse, and the machine should be adapted to hold boxes containing 25 or 50 cigars.

In the make up of my machine, I remove a portion of the bottom of the box through which the cigars drop into a holder from which one cigar is released at a time when the machine is operated. One wall of the holder is adjustable to accommodate different lengths of cigars, and the box retainer is also adjustable to accommodate cigar boxes of different widths. The main frame of my machine comprises the side plates 1 and 2 held separated by the face plate 3, cross-bars 4, front cross-bar 5 and intermediate cross-bar 6. The plate 3 constitutes a support for the cigar box hereinafter referred to and has a passage therethrough with which a cigar passage through the cigar box registers.

A cigar receptacle is formed by a plate 7 connected to the side plates by bolts 8 passing through depending ears 9 and through

slots 10 in the side plates. The upper end of this plate rests on a cross-bar 11 connecting the plates, and a slot 12 is formed in the plate 7 through which a bolt 13 passes into the cross-bar. The slots 10 and 12 permit the plate to be bodily adjusted in the direction of its length. To the lower front end of the side plates is pivoted a cigar releaser 13 constituting a movable wall of the cigar receptacle, having its lower edge resting against the lower end of the plate 7 as shown at Fig. 1. This releaser has trunnions 14 and 15 extending through the side plates.

A rock-shaft 16 is supported by the side plates of the machine, and to the end thereof projecting through the side plate 2 is connected a crank-arm 17. To the trunnion 15 of the cigar retainer is secured a crank-arm 18, and a link 19 connects the crank-arms 17 and 18 in a pivotal manner. To the rock-shaft 16 inside of the side plate 2 is fixedly secured a crank-arm 20, and to its free end is pivoted an actuating rod 21 extending vertically through a guide 22 supported by the cross-bar 23.

To the side plate 2 is connected one end of a spiral spring 24, the lower end of this spring has a connection with the actuating rod 21. The action of this spring is to hold the actuating rod 21 elevated, and through the connections with the releaser 13, the releaser is held against the lower edge of the plate 7 as shown at Fig. 1. By pushing down on the actuating rod 21, the shaft 16 will be rocked, which will oscillate the crank-arm 17, move the link 19 and rock the releaser 13 away from the lower end of the plate 7, for a purpose to appear hereinafter. Upon releasing the actuating rod, the spring 24 will return it and the releaser to their normal positions.

To the cross-bar 23 is secured a coin passage-way having its upper section 25 extending forward, its intermediate section 26 extending downward and forwardly, and its lower section 27 extending laterally and downwardly. The intermediate section 26 has an opening 28 within which extends a permanent magnet 29 which is supported by the cross-bar 23. Should steel or iron slugs be placed in the coin-passage-way they may be forced down as far as the opening 28 when the magnet will draw them into the opening and close the passage-way sufficiently to prevent others being forced by it, thereby preventing the machine being oper-

ated by spurious devices. A discharge tube 30 has its upper end located beneath the discharge opening in the lower section of the coin passage-way, as shown at Figs. 4 and 7.

5 To the cross-bar 6, about midway of its length is pivoted a lever 31, having its upper end 32 extending within the lower end of the coin passage-way as shown at Figs. 4, 7 and 8. The lower end 33 of this lever rests and
10 moves on a curved bar 34 supported by the side plates 1 and 2 as shown at Fig. 5. To the lower end of the lever 31 is secured a curved plate 35, which has a lengthwise extending slot 36. A presser plate 37 (constituting a movable wall of the cigar magazine leading from the cigar box to the cigar receptacle, and adapted to engage the ends of the cigars in said magazine) has a shank 38 located in the slot 36, and a nut 39 located on
15 the screw-threaded end of the shank connects the presser plate with the curved plate 35 in an adjustable manner.

To the lower end of the face plate 3 is secured a plate 40, its lower end being curved
25 downward as shown in dotted lines Fig. 1, and is located some distance in rear of the plate 5, leaving an opening of a width to allow a cigar to pass between them. This connection of the plate 40 with the face plate 3
30 is by the bolts 41 passing through the slots 42. To the side plate 2 is fixedly secured a plate 43 which is located opposite the presser plate 37 and forms, in connection with the presser plate 37 and plates 5 and 40, a cigar magazine or holder. To a rock shaft 44 journaled
35 in the side plates 1 and 2 is fixedly secured an actuating lever 45 which extends upward therefrom, and when in its normal position rests against a cross-bar 46 supported by the
40 side plates of the structure. To the cross-bar 46 is secured a bracket having a forward extending lower portion 47. To the rock shaft 44 is fixedly connected a finger 48, and a spiral spring 49 connects this finger, and
45 the upper portion of the bracket as shown at Fig. 1.

The lower portion 27 of the coin passage-way is formed with a vertical slot 50. When a coin is dropped into the passage-way it will
50 lodge against the upper end 32 of the bar 31 as shown at Fig. 7. The forward movement of the actuating lever 45 will move the finger 48 against the coin 51 and force it down into the discharge tube 30. In forcing the coin
55 down it will contact with the upper end 32 of the lever 31 as shown at Fig. 7, and will move that end of the lever outward far enough to allow the coin to pass into the tube. This movement of the lever will move its lower
60 end 33 and carry the presser plate 37 away from the plate 43, and after the coin has passed into the discharge tube the spring 52 connecting the lever 31 with the side plate 1 will return the parts into their normal positions.
65

To a cross-bar 53 is connected a bracket 54 to which is pivoted a rocking-bar 55 about midway of its length. A crank-arm 56 is fixedly connected to the rock-shaft 16, and a link 57 connects this crank-arm with one end
70 of the rocking-bar 55. To the other end of the rocking-bar 55 is pivoted a finger 58 which extends upward through a slot in the bracket 47. The upper end of this finger is located opposite the slot 50 in the lower portion of the coin passage-way, as shown at Fig. 1. Should the actuating rod 21 be pushed down before a coin is dropped into the coin passage-way 25, the finger 58 will be elevated so that its upper end will terminate
80 within the coin passage-way so that when a coin is dropped into the passage-way it will be arrested and prevented from descending sufficiently to be operated upon by the actuating lever 45.

Upon the front 3 is located a cigar box 59 and is held in place thereon by the side clamps 60 which are adjusted laterally of the front to accommodate boxes of varying widths. A
90 portion of the bottom of the cigar box is removed, leaving an opening 61 which is located over the cigar holder. A cigar box with cigars 62 in it is placed on the front 3 and enough cigars will drop into the cigar holder to fill it as shown at Fig. 1. The bottom cigar will be held in place by the presser
95 plate 37 bearing against one of its ends, thereby pressing it against the stationary plate 43.

When a coin or other transitory check or
100 mechanism trip and is dropped into the passage-way as above described, and the actuating lever 45 is operated, a lever 31 is tripped and the presser plate will be drawn away from the end of the cigar, which will allow
105 the cigar formally held by the presser plate to drop into the cigar receptacle and permit other cigars to fill the holder. When the presser plate has been released it will impinge upon the cigar which has taken the position
110 of the one dropped into the receptacle.

By operating the actuating rod 21, the cigar releasing plate 13 is rocked away from the plate 7 sufficiently to allow the cigar just
115 dropped into it, to be discharged into the receiving pan 63. As the finger 58 moves into the position occupied by the coin at the time the finger 48 descends to force the coin down, it is evident that the coin cannot be forced down, thereby preventing the operation of
120 the presser plate 37, for if the releasing plate could be held open and at the same time the presser plate be moved to release a cigar it is plain that both the cigar receptacle and cigar
125 holder would be held open thereby allowing all the cigars contained in the box to run out into the receiving pan, and this finger 58 is a safe guard which insures the opening of the cigar holder or cigar receptacle only when one or the other is closed.
130

In the upper portion of the face plate 3 is formed a slot 64. A bar 65 is provided with a cross-bar 66 at its upper end which forms a neck which is located in the slot 64, thereby holding the bar in position to overlie the cigar box 59 as shown at Fig. 1. The object of this bar is to hold the cigars in the box from falling out as the position of the box is such that without such an arrangement the cigars would not be held in place. This bar is formed with an offset 67 which when the bar is turned over so that its now top face will be down, a deeper box can be used, and the bar would hold the cigars of the deeper box in place.

In order that the cigars in the lower end of the box may be agitated so as to insure them passing into the cigar holder I have provided an agitator 68 which is located against the inner face of the cross-bar 5 as shown at Fig. 1. To the outer face of the cross-bar 5 is pivoted a bar 69 which extends through the side plate 1 of the main frame. A projection 70 extends from the agitator and moves in a vertical slot 71 formed in the cross-bar 5. The outer end of this projection has a pivotal connection with an ear 72 extending from the bar 69. To the outer face of the side plate 1 of the main frame is connected a bracket 75 to which is connected a rocking-bar 74 about midway of its length. A link 75 connects one end of this rocking-bar and the projecting end of the bar 69. To the other end of this rocking-bar 74 is pivotally connected a pendant 76 having its lower portion provided with a lengthwise slot 77. To the trunnion 14 of the releaser 13 is fixedly connected an arm 78 which extends rearward and has a pin 79 located in the vertical slot 77 of the pendant 76.

When the cigar releaser 13 is moved to allow a cigar to drop into the receiving pan, the arm 78 will be moved downward in engagement with the slotted pendant 76, and just before the releaser is moved to its fullest extent the pin 79 will engage the end of the slot 77 and cause the arm 74 to be rocked which will, through the link 75 and the bar 69 move the agitator upward, and just before the releaser assumes its normal position the pin 79 will engage the upper end of the slot 77 of the pendant and rock the parts connecting the pendant with the agitator to move the agitator down into its normal position.

Around the operative parts of my device I have placed a casing comprising the sides 80, vertical front 81, inclined front 82, top 83 and back 84. A glass door 85 is provided for the inclined front in order that the box containing the cigars may be seen, so that the purchaser of a cigar may know the brand of cigars the box contains. The cigar receiving pan 63 extends through the vertical front of the casing, and the coin passage-way 25, actu-

ating rod 21 and actuating lever 45 extend through the top 83.

Any number of machines of this construction may be placed in the same casing or a separate casing may be employed for each machine.

The cross-bars 86 form supports for the main frame of the machine.

I claim as my invention.

1. A cigar vending machine, comprising a cigar magazine having a movable wall to engage the ends of cigars therein, means for moving the wall, a cigar receptacle located beneath the magazine and having a movable wall, and means for moving the wall of the receptacle.

2. A cigar vending machine, comprising a cigar magazine having a movable and adjustable wall to engage the ends of cigars therein, means for moving the wall, a cigar receptacle located beneath the magazine and having a movable wall, and means for moving the wall of the receptacle.

3. A cigar vending machine, comprising a cigar magazine having a movable wall to engage the ends of cigars therein, means for moving the wall, a cigar receptacle located beneath the magazine and having a movable wall, means for moving the wall of the receptacle, an agitator, and means for moving the agitator.

4. A cigar vending machine, comprising a cigar magazine having a movable wall, means for moving the wall, a cigar receptacle located beneath the holder and having a movable wall, means for moving the wall of the receptacle, and means for preventing the movement of the wall of the holder while the wall of the receptacle is in its open position.

5. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box resting on said support and provided with a cigar passage in register with that of said cigar box support, a cigar receptacle, a cigar magazine communicating with the cigar passages through the cigar box and cigar box support and leading to said cigar receptacle, means engaging cigars in said magazine, means for releasing such engagement to permit discharge of the cigars from said magazine to said receptacle, and means for permitting discharge of cigars from said receptacle.

6. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box provided in its bottom with a cigar passage to register with the cigar passage in the cigar box support, a cigar receptacle, a cigar magazine in communication with the cigar passages through the cigar box and cigar box support and leading to said receptacle, means engaging cigars in said magazine, means for releasing said engagement to per-

mit discharge of cigars from the magazine to the receptacle, means for permitting discharge of cigars from said receptacle, and means for preventing the operation of the magazine cigar discharge while the cigar receptacle discharge is in condition to discharge cigars.

7. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box provided in its bottom with a cigar passage in register with that of the cigar box support, a cigar magazine communicating with said cigar passages, means for engaging the ends of cigars in said magazine, and means for releasing such engagement to permit discharge of cigars from said magazine.

8. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box resting on said support and provided in its bottom with a cigar passage in register with that of the cigar box support, a cigar receptacle, a cigar magazine communicating with said cigar passages and leading to said receptacle, means for engaging the ends of cigars in said magazine, means for releasing such engagement to permit discharge of cigars from said magazine to said receptacle, and means for permitting discharge of cigars from said receptacle.

9. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box resting on said support and provided in its bottom with a cigar passage in register with that of the cigar box support, a cigar receptacle, a cigar magazine communicating with said cigar passages, and leading to said receptacle, means for engaging the ends of cigars in said magazine, means for releasing such engagement to permit discharge of cigars from said magazine to said receptacle,

cle, means for permitting discharge of cigars from said receptacle, and means for preventing discharge of cigars from the magazine when the cigar discharge from the receptacle is in condition to permit the discharge of cigars therefrom.

10. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box supported thereby and also having a cigar passage through its bottom in register with that of the cigar box support, a cigar receptacle having a movable wall, a cigar magazine communicating with said cigar passages and leading to said receptacle and having a movable wall to engage the ends of cigars therein, means for moving said wall to permit discharge of the cigars from the magazine to the receptacle, and means for moving the wall of the cigar receptacle to permit discharge of cigars therefrom.

11. A cigar vending machine, comprising a cigar box support having a cigar passage, a cigar box supported thereby and also having a cigar passage through its bottom in register with that of the cigar box support, a cigar receptacle having a movable wall, a cigar magazine communicating with said cigar passages and leading to said receptacle, and having a movable wall to engage the ends of cigars therein, means for moving said wall to permit discharge of the cigars from the magazine to the receptacle, means for moving the wall of the cigar receptacle to permit discharge of cigars therefrom, and means for preventing the movement of the wall of the cigar magazine when the wall of the cigar receptacle is open.

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