

No. 731,593.

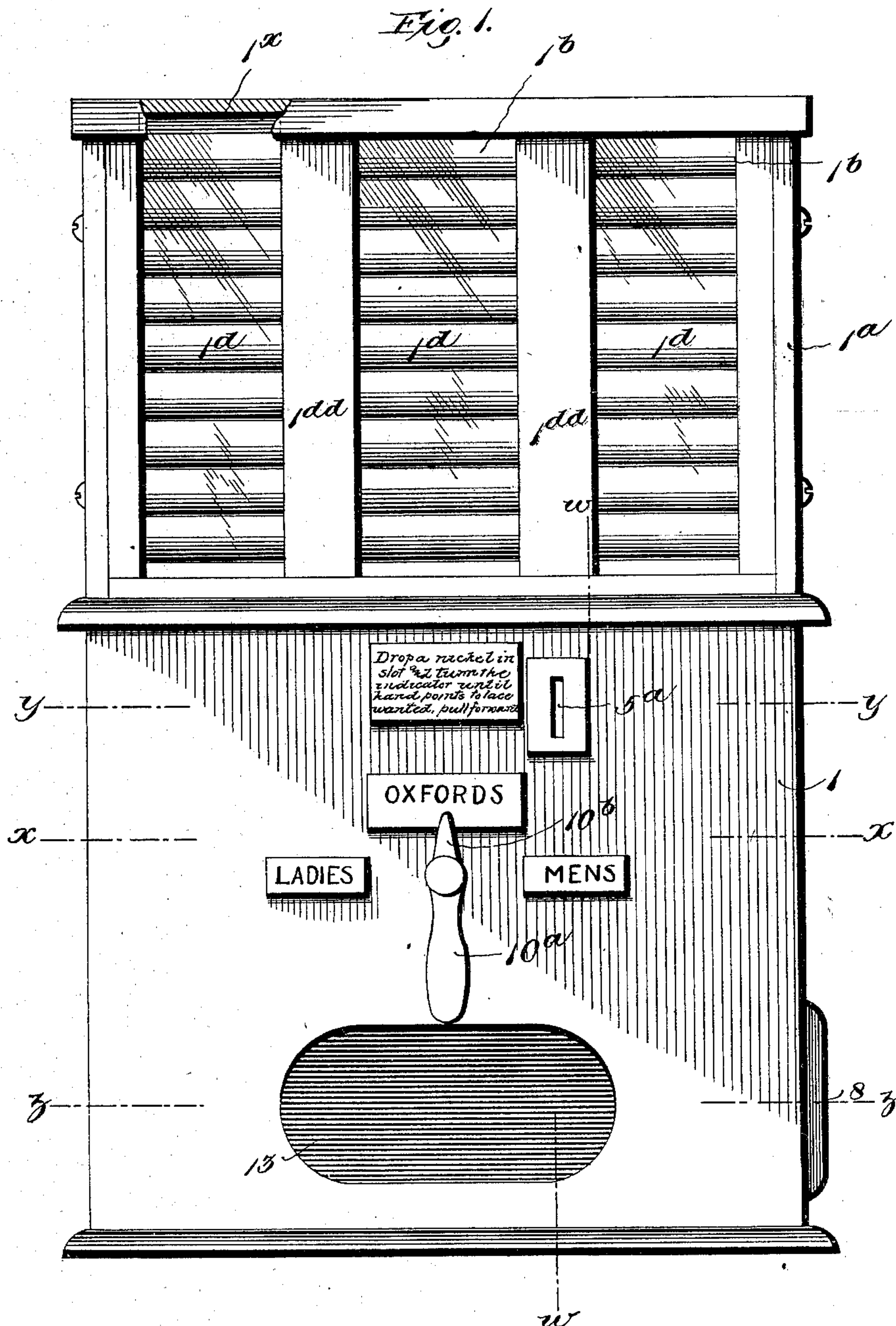
PATENTED JUNE 23, 1903.

C. M. MITCHELL.
VENDING MACHINE.

APPLICATION FILED FEB. 5, 1902.

NO MODEL.

5 SHEETS—SHEET 1.



Witnesses

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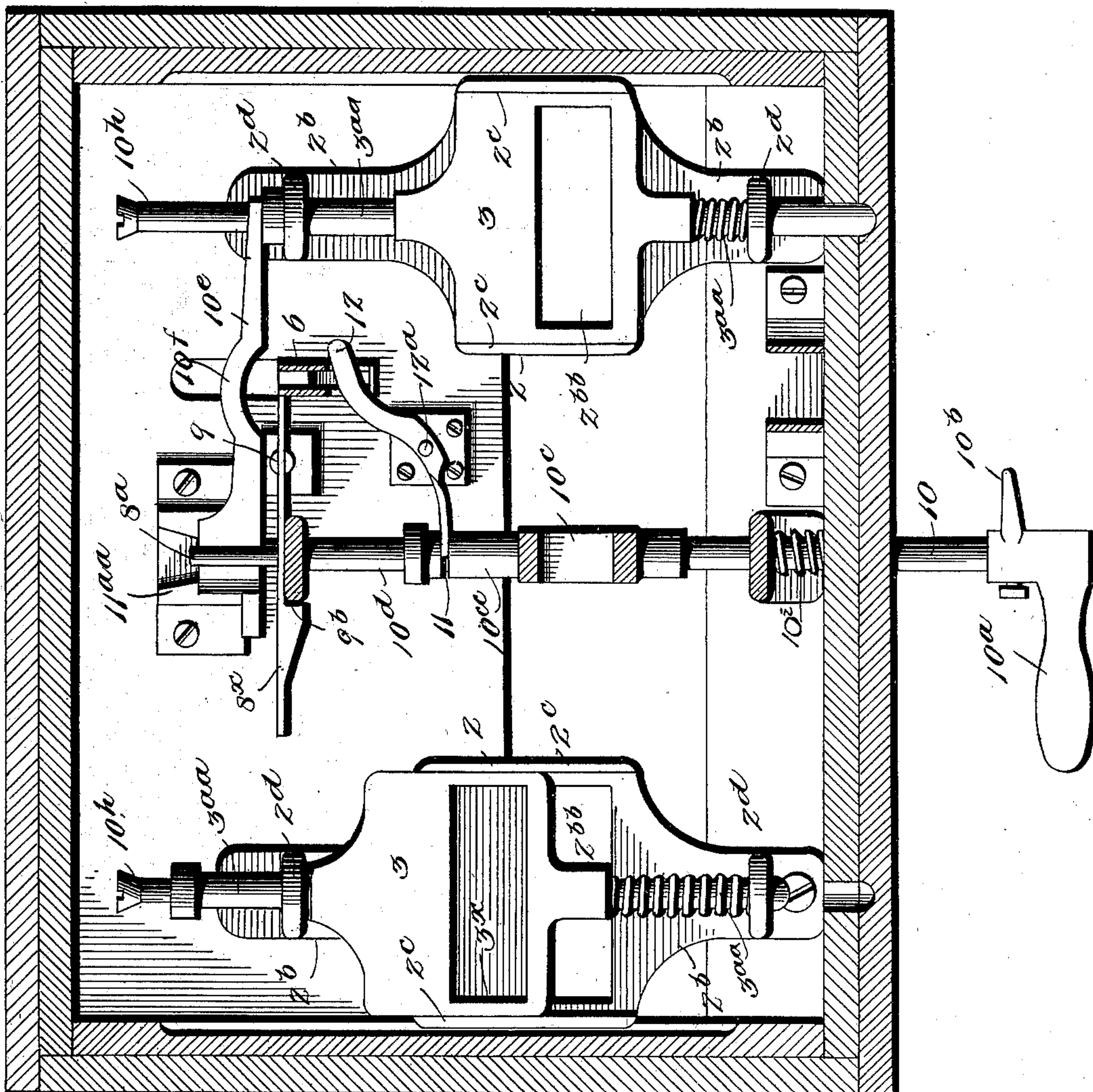
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5 SHEETS—SHEET 3.

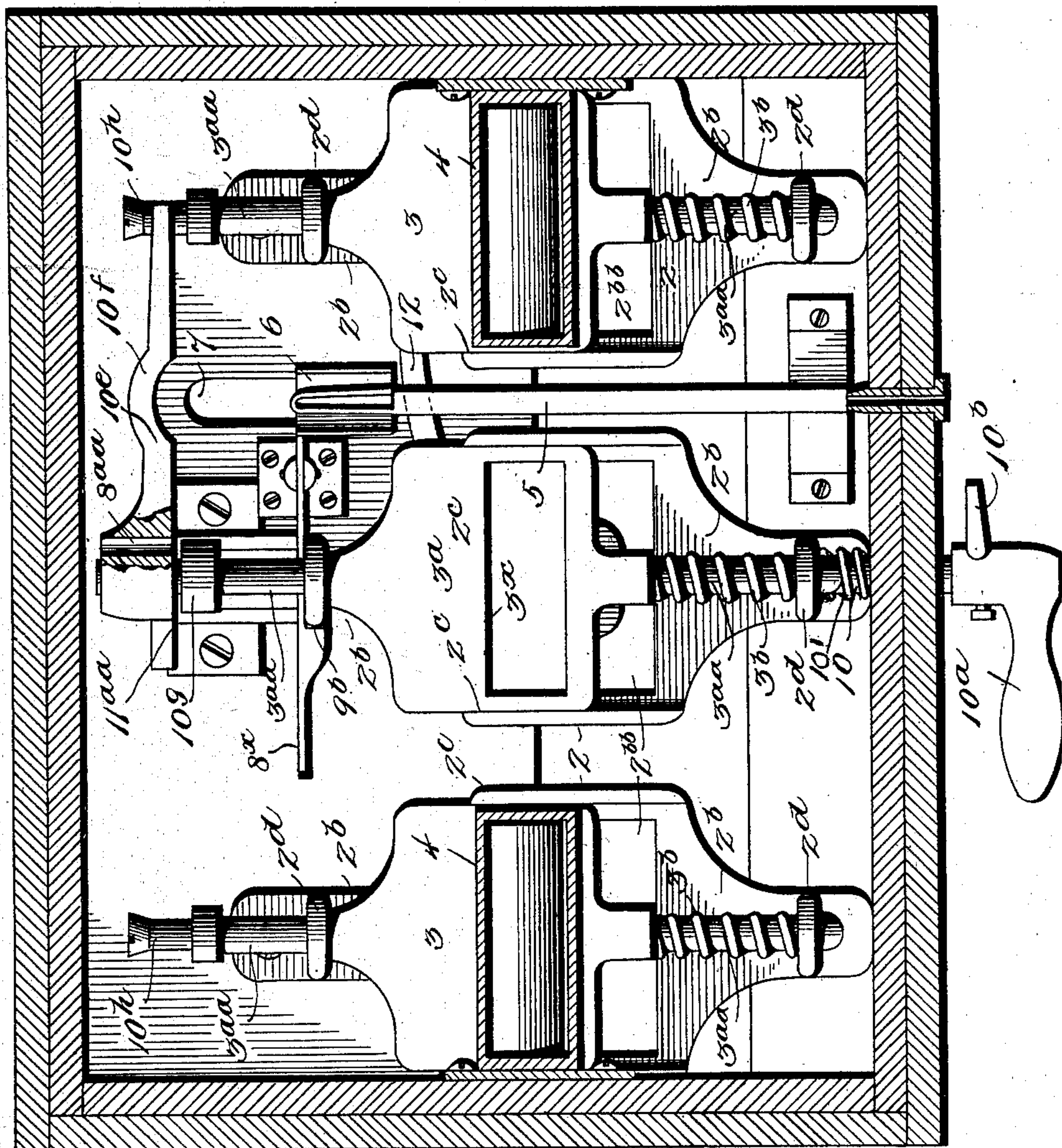


Fig. 3.

Witnesses

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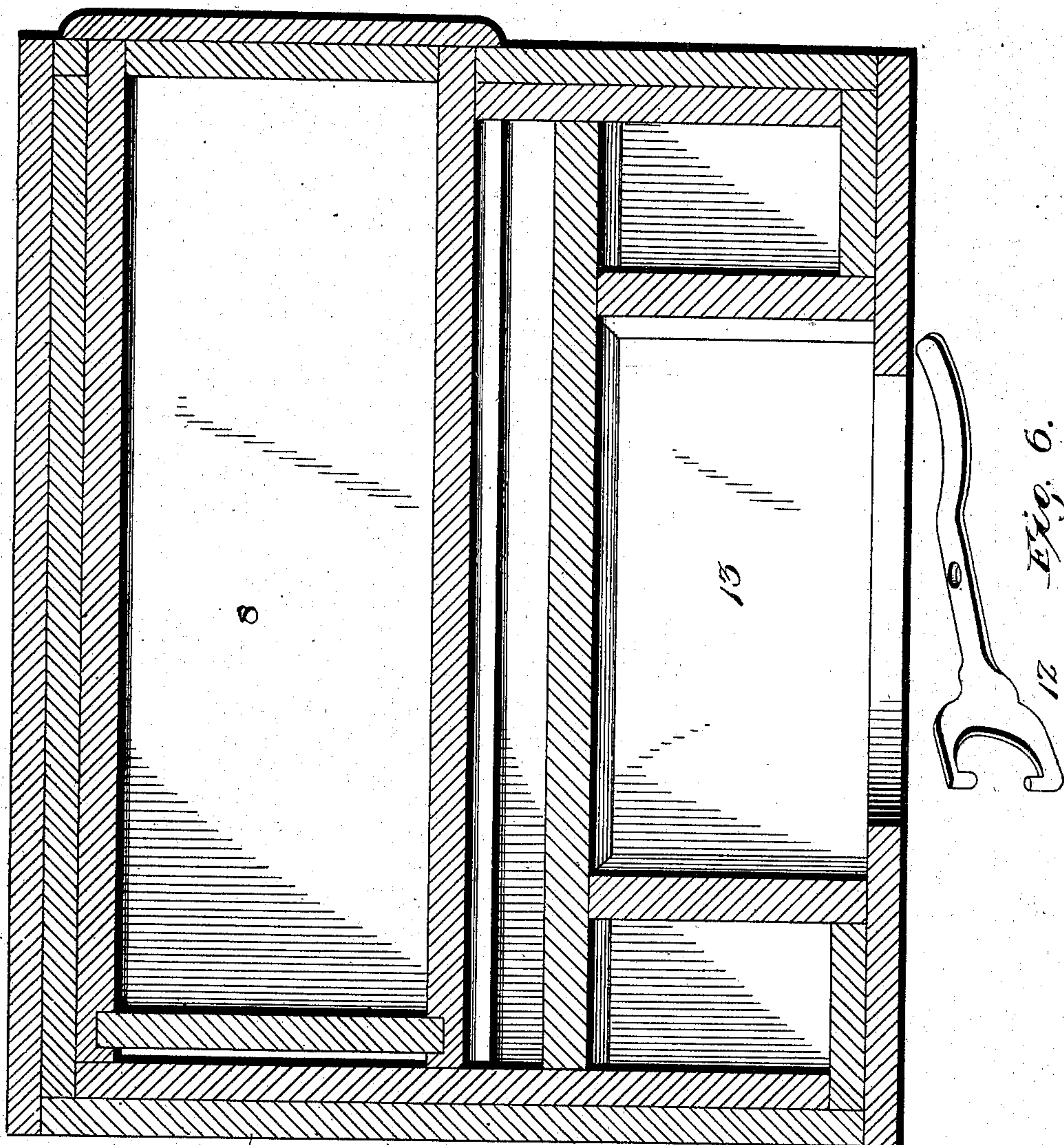
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5 SHEETS—SHEET 4.



Witnesses

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Fig. 4.

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5 SHEETS—SHEET 5.

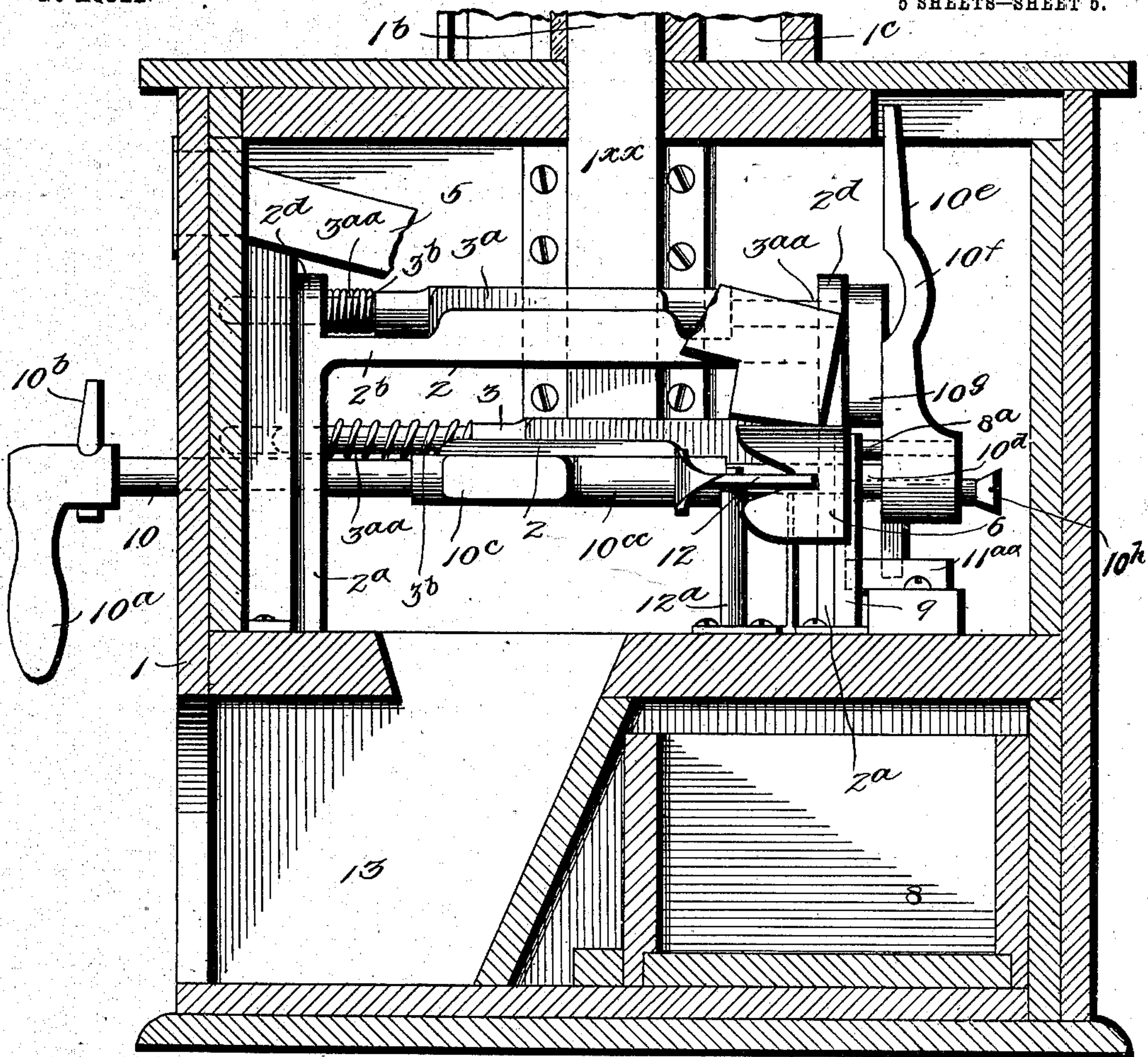


Fig. 5

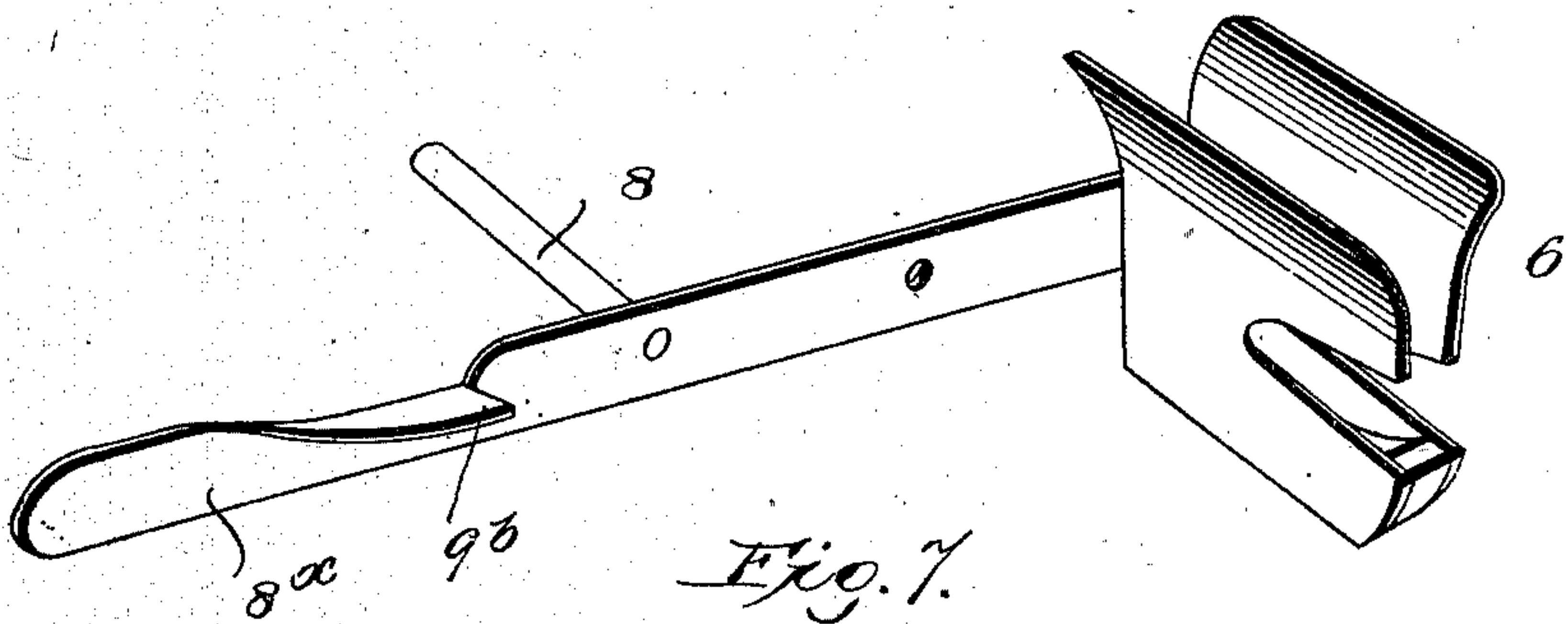


Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES M. MITCHELL, OF CHATTANOOGA, TENNESSEE.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 731,593, dated June 23, 1903.

Application filed February 5, 1902. Serial No. 92,661. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. MITCHELL, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented certain new and useful Improvements in Vending-Machines; and I 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.

My invention relates to what are termed "vending-machines," particularly that class wherein the mechanism is tripped or released by dropping or passing a coin thereinto.

It has for its object, among other things, to provide for the release or delivery of articles or packages from a number or plurality of chambers by a common actuating-lever through a common chute; also, to effectually involve or lock the mechanism as against unauthorized or surreptitious actuation and to greatly simplify the construction and operation of the parts, consequently lessening the cost of manufacture thereof.

It consists of the combination and arrangement of parts, substantially as hereinafter more fully disclosed, and specifically pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a front view. Fig. 2 is a horizontal section on the line *xx* of Fig. 1, with the actuating-lever drawn forward for releasing or delivering a package or article from a lateral package-holder. Fig. 3 is a similar section on the line *yy* of Fig. 1, with the said lever in an inoperative position. Fig. 4 is also a like section on the line *zz* of Fig. 1. Fig. 5 is a vertical section on the line *ww* of Fig. 1, the actuating-lever being drawn forward to release or deliver the package or article from the central package chamber or holder. Fig. 6 is a detail view disclosing more particularly the coin-actuated and lever-releasing contrivance or device. Fig. 7 is a like view showing more especially the coin-dropping slide or lever.

It will be understood that latitude is allowed herein as to details, particularly as relates to the number of package releasing or delivery devices and the number of package-

holders, as convenience may suggest, without departing from the spirit of my invention and said invention still remain intact and be protected.

In carrying out my invention I provide a suitable receptacle or closure 1, preferably as shown, to contain the operative parts, and upon said receptacle I superpose a supplemental receptacle 1^a. Said supplemental receptacle is preferably arranged centrally of and fixed to the top of the closure 1 and is itself subdivided into a number or plurality of package receiving or containing compartments or subchambers 1^b; also, a storage-compartment 1^c, arranged in rear of the last named. Said compartments or subchambers are arranged all side by side and face the operator and preferably have a common transparent or glass sliding front 1^d to permit the ready viewing of the contents of said compartments and replenishing of the same. Said transparent front or slide may have applied thereto upon its outer side or surface cleats or strips 1^{dd} as an improvised means of concealing the partitions in rear of said front or slide and between the subchambers or compartments 1^b from sight. In the top of the receptacle 1 are preferably rectangular or oblong slots or openings 1^x, registering with the compartments or subchambers 1^b, the central slot or opening having, preferably, a corresponding downwardly-extending short tube 1^{xx}, the purpose of which will be presently apparent.

A number or plurality of preferably metallic plates or supports 2 are suitably secured in place, preferably as shown, pendant-bars 2^a, integral with rearwardly and forwardly extended arms 2^b, integral with said plates, being secured by lower end flanges and suitable fastenings to the bottom of the receptacle 1. Said plates have in their forward end portions slots or openings 2^{bb}, also are provided with lateral flanges 2^c, the lateral ones of said plates or supports being arranged, preferably, in a lower plane than the central one, for a purpose presently seen. Slides or carriers 3, also having in their forward ends oblong openings or slots 3^x, are arranged one above each of the plates or supports 2 and guided thereon as against lateral displacement by the flanges 2^c. Said carriers or slides

are provided with forwardly and rearwardly extended arms 3^{aa}, preferably cylindric in cross-section, passing through holes in upward extensions 2^d of the pendants 2^a and
 5 having arranged thereon springs 3^b, whose action is to normally hold the slots or openings 3^x of said carriers or slides out of alignment with the openings or slots 2^b of the supports or plates 2, as when the machine is out
 10 of operation.

Directly above and in line with the openings 2^{bb} of the lateral plates 2 are fixed suitably to the sides of the closure 1 chutes or tubes 4, while the tube or chute 1^{xx}, secured
 15 to the top of this receptacle, stands directly above and in line with the opening or slot 2^b of the central plate or support 2. These tubes or chutes are sufficiently elevated from said plates or supports to permit the reception
 20 therebetween of the slides or carriers 3 3^a.

A coin-receiving tube or trough 5, communicating with a slot or opening 5^a in the front of the receptacle 1, extends a suitable distance rearwardly in said receptacle and delivers into a laterally-tilting holder or hopper
 25 6, itself adapted to deliver or discharge into an opening or slot 7 in the top of the coin or money drawer 8, arranged below in that end of the said receptacle. Said coin-hopper is
 30 pivotally or tiltingly hung or supported in position directly under and at the delivery end of the trough 5, it having, preferably, an integral arm or lever 8^x extending laterally therefrom and pivoted or fulcrumed a short
 35 distance from said hopper upon or in a post or support 9, fixed to the receptacle-bottom. Said lever or arm carries a rearwardly-extending pin or projection 8^a, the function of which will appear later. The lever or arm 8^x has
 40 near its free end a lateral shoulder or stop 9^b, adapted to engage the edge of one of the bars of the central plate 2 to limit the upward movement of said lever, as presently seen.

A hand-actuated lever or shaft 10 extends
 45 through and is partly supported in the receptacle-front and provided outside of said receptacle-front with a suitable handle 10^a and a lateral pointer or finger 10^b, adapted to register with indicia on said receptacle. Said
 50 lever or shaft is also supported in position, as will later appear, and preferably is produced in sections, the handled section being suitably connected at its inner end, preferably to a frame or loop section 10^c. Said loop or
 55 frame section has projecting centrally from its opposite side a cylindric portion or extension 10^{cc}, in turn having suitably connected thereto a third section 10^d, bearing and sliding in an aperture of the pendant-bar supporting that end of the central plate or support 2. Said cylindric extension 10^{cc} is provided with an annular or circular cam-groove 11, the purpose of which will be presently disclosed. Said shaft or lever section 10^d carries
 65 at its extreme rear end an arm or supplemental lever 10^e of a length adapted to enable it to compass or engage either of the

lateral slides or carriers 3, as will be more fully understood later, as well as engage the central slide or carrier 3^a. Said arm or supplemental lever 10^e has at a point in alignment with the pin or projection 8^a of the coin-hopper arm 8^x an aperture 8^{aa}, as shown in Fig. 3, which pin and aperture are required to register in order to provide for the actuation of the package releasing or delivering mechanism, which will be described farther on. Said arm also preferably has a bend 10^f therein with its convexity or salient portion presented rearwardly. The central slide or carrier 3^a has preferably a pendant 10^g at its rear end for engagement with the arm or supplemental lever 10^e in effecting the actuation of the central package releasing or delivery mechanism, as presently seen. The lateral movement or throw of the shaft-arm 10^e is limited by suitable stops 10^h, which may be screw-threaded projections screwed into the rear supports of the plates 2. A guide or grooved casting 11^{aa}, suitably secured to the receptacle-bottom, with the groove therein flared at its entrance or rear end, is so arranged below said supplemental arm or lever that when said arm is disposed by suitably manipulating the shaft 10 vertically and a little rearwardly of said guide and then sliding the shaft 10 forwardly said arm will enter at its lower end said grooved guide and its aperture 8^{xx} be thus held in true alignment with the pin or projection 8^a during such forward movement of said shaft. A spring 10ⁱ, suitably applied to the shaft or lever 10, automatically returns it to its normal position after having been actuated.

A coin-releasing slide or lever 12, adapted normally to occupy a position crosswise of the throat of the hopper 6 and suitably fulcrumed upon a post or support 12^a, secured to the receptacle-bottom, is bifurcated at one end and has inward projections or studs upon the free ends of the branches of its bifurcated portion engaging the annular cam-groove 11 of the shaft 10.

A coin or nickel placed in the slot 5^a will upon reaching the delivery end of the tube or trough 5 drop into the hopper 6 and tilt it, so as to move the lever or arm 8^x upwardly, accordingly carrying with it the pin 8^a to a predetermined point or height. The purchaser or operator desiring, say, to obtain a package from the central containing compartment or holder, he accordingly turns the shaft or lever 10 to cause its pointer to indicate that fact, in this instance said pointer then coming opposite the word "Oxfords," placed upon the receptacle-front. He next pulls said shaft or lever forwardly, when the lower end of the arm 10^e slides in the grooved casting or guide 11^{aa}, and the pin or projection 8^a being allowed to enter the aperture 8^{xx} of said arm the last-named will engage the pendant 10^g of the central slide or carrier 3^a, and thus carry it forward. The slot or opening in said carrier will register with the

lower open end of the corresponding or central package-containing compartment, receive a package therefrom, and drop it through the registering slot or opening in the plate below, said package passing downwardly via the common chute 13 into the bottom chamber of the receptacle 1, whence it is readily accessible to the purchaser or operator through an opening in said receptacle-front. Simultaneously with the forward movement of the shaft or lever 10 the coin-releasing slide or lever 12 will be actuated, so that the coin temporarily held in the hopper 6 will be released and deposited in the money till or drawer below, the locking pin or projection 8^a thus being free as soon as the shaft or lever 10 is released to automatically fall or return to its former position, which will intercept any subsequent forward movement of said shaft 10 by the thus moving of said pin 8^a out of alignment or register with said aperture 8^{aa}, and thus prevent the further actuation of the package releasing or delivery mechanism until another nickel or coin has been deposited in the slot 5^a. Desiring to obtain a package from either of the lateral compartments, a coin or nickel, as above pointed out, having been placed in the coin-slot, the shaft or lever 10 is accordingly adjusted or turned, with its pointer registering with the words "Ladies" or "Gentlemen's," also inscribed on the receptacle-front, as may be desired. Said shaft or lever is next, as aforesaid, drawn forward, when its arm 10^e will pass under or by the pin 8^a and accordingly be permitted to engage and move forwardly the alining slide or carrier 2 and effect the discharge or delivery of the desired package. The release and return of the locking-pin 8^a to its former lowered position will take place upon the lever or shaft 10 reaching the end of its return movement, as recited in connection with the above-named movement of parts.

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

1. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, a tilting coin-hopper having an arm provided with a pin or projection, a longitudinally and axially movable shaft carrying an arm adapted to receive said pin or projection, and means for actuating said hopper, substantially as set forth.

2. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, and having a pendant at one end, an endwise-movable and rotatable shaft, carrying an arm adapted to engage said pendant, a tilting hopper having attached thereto a lever provided with pin, said arm having an aperture for the reception of said pin, and means for

actuating said hopper, substantially as set forth.

3. In a machine of the character described, the combination of slotted supports, slotted carriers adapted to slide upon said supports, an endwise-movable and rotatable shaft carrying an arm at one end, a tilting or pivoted hopper having a lever provided with a pin or projection, and means for actuating said hopper to cause said last-named lever to carry said pin out of the plane of the movement of said arm as said shaft is actuated, substantially as set forth.

4. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, an endwise-movable and rotatable shaft carrying an arm, a tilting hopper having attached thereto a lever carrying a pin adapted to enter an aperture in said arm, and a coin-dropping slide or lever adapted to engage a groove in said shaft, and means for actuating said hopper, substantially as set forth.

5. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, an endwise-movable and rotatable shaft carrying an arm, a tilting hopper having attached thereto a lever carrying a pin adapted to enter an aperture in said arm, and a coin-dropping slide or lever adapted to engage a groove in said shaft, means for actuating said hopper, and a guide to receive the lower end of said arm, substantially as set forth.

6. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, an endwise-movable and rotatable shaft carrying an arm, a tilting hopper having attached thereto a lever carrying a pin adapted to enter an aperture in said arm, and a coin-dropping slide or lever adapted to engage a groove in said shaft, means for actuating said hopper, and a guide to receive the lower end of said arm, said hopper-actuated lever having a lateral shoulder or stop adapted to limit its upward movement.

7. In a machine of the character described, the combination of a slotted support, a slotted carrier adapted to slide upon said support, a tilting coin-hopper having an arm provided with a pin or projection, a longitudinally and axially movable shaft having an arm adapted to receive said pin, means for actuating said hopper, a series or plurality of article-receiving compartments, a delivery chute or compartment, and means for actuating said shaft, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES M. MITCHELL.

Witnesses:

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GEO. GARDENHIRE.