

No. 846,710.

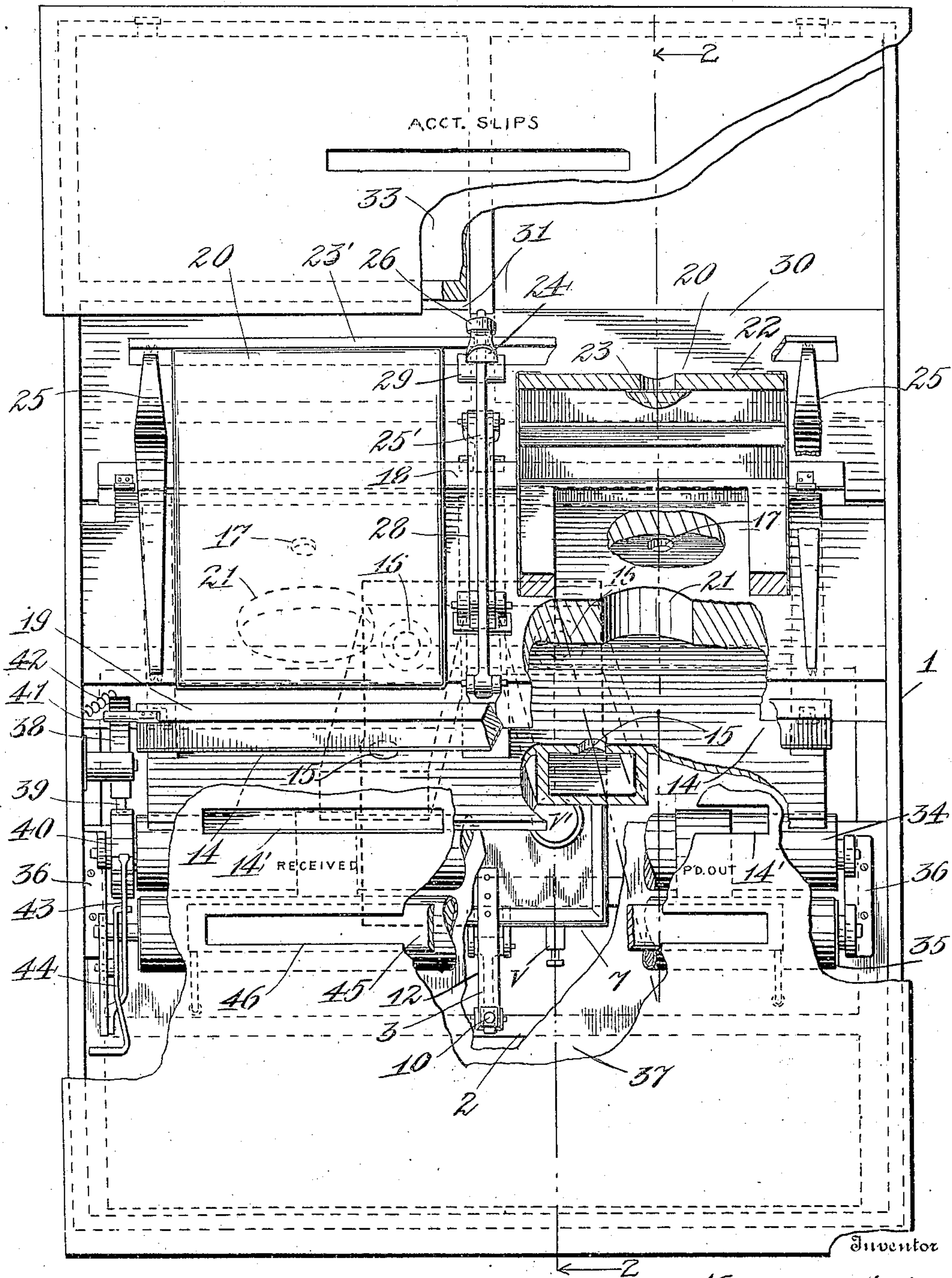
N. W. WILLIAMS.

PATENTED MAR. 12, 1907.

CASH DRAWER.

APPLICATION FILED DEC. 5, 1905.

3 SHEETS—SHEET 1.



Witnesses
Edward W. Cressman.
Arlita Adams.

Fig. 1
By

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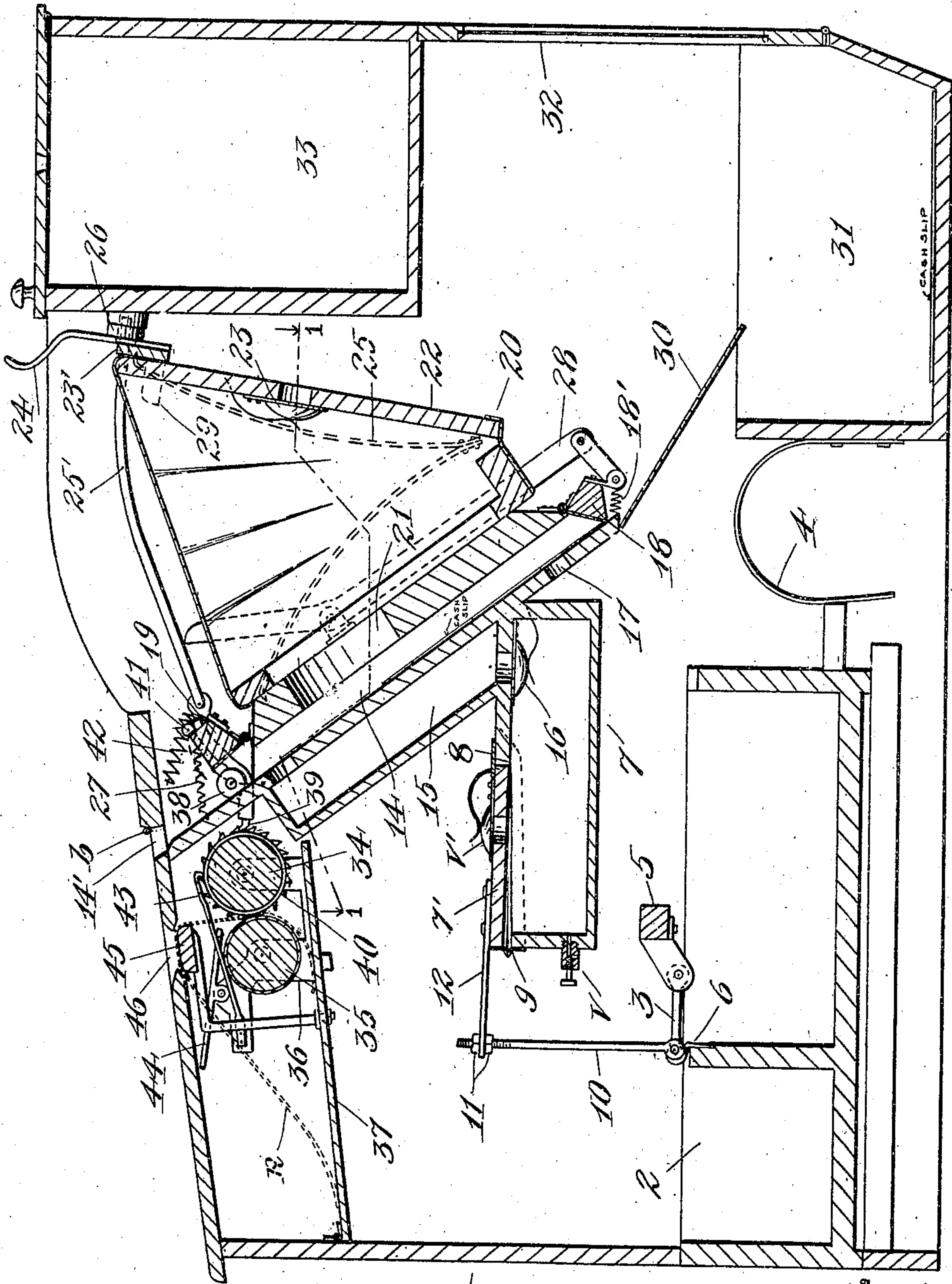
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3 SHEETS—SHEET 2.



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Fig. 2

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3 SHEETS—SHEET 3.

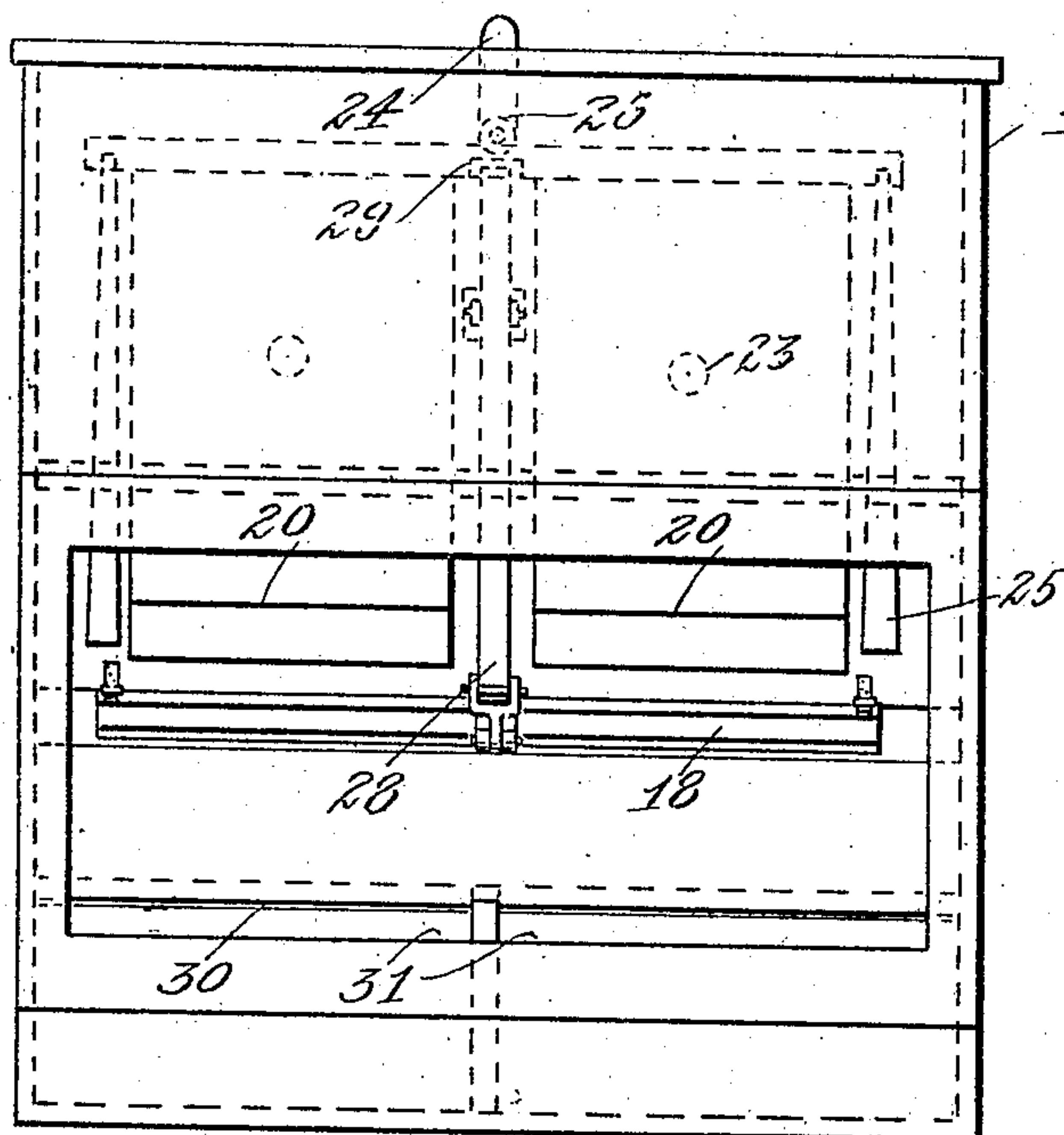


Fig. 3

CASH SHEET.

Dr.			Cr.		
Date	RECEIPTS	Am't	Date	DISBURSMENTS	Am't
1 10	Thread	20	1 10	Coal	20 00
TOTAL			TOTAL BAL.		

Fig. 4

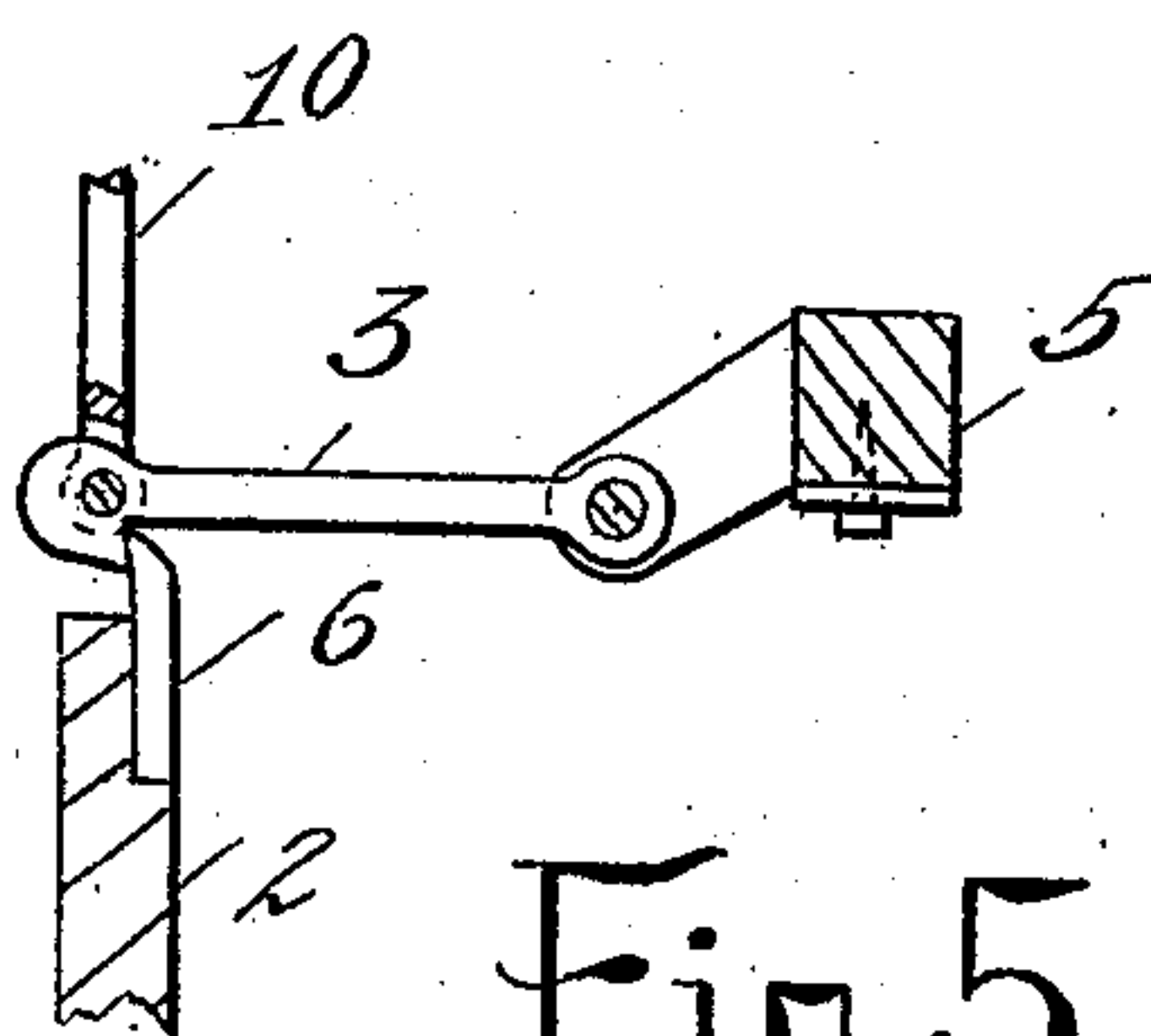


Fig. 5

Fig. 6

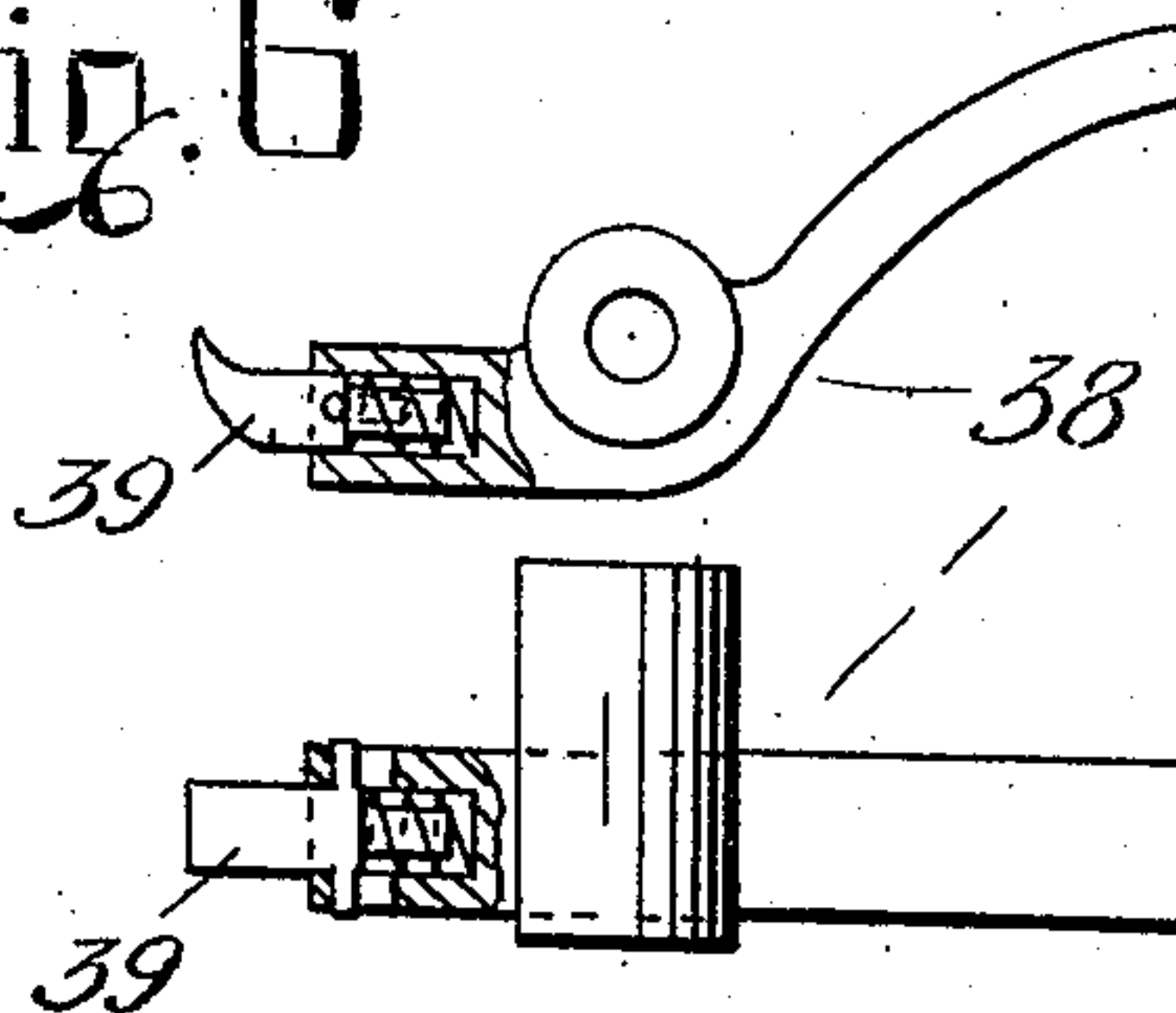


Fig. 7

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UNITED STATES PATENT OFFICE.

NATHAN WALLACE WILLIAMS, OF SEATTLE, WASHINGTON, ASSIGNOR OF
ONE-FOURTH TO MAJOR C. HUNT, OF SEATTLE, WASHINGTON.

CASH-DRAWER.

No. 846,710.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 5, 1905. Serial No. 290,484.

To all whom it may concern:

Be it known that I, NATHAN WALLACE WILLIAMS, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Cash-Drawers, of which the following is a specification.

My invention relates to improvements in cash-drawers; and the primary object thereof is to provide simplified and improved locking means therefor.

With the above and other objects in view, to be referred to in the following description, the invention consists in the constructions, combinations, and arrangement of parts hereinafter set forth, and succinctly defined in the appended claims.

In the accompanying drawings, in which like numerals of reference indicate like parts throughout the several views, Figure 1 is a plan view of the device shown in partial section, taken on line 1 1 of Fig. 2, with portions of some of the parts broken away. Fig. 2 is a vertical section taken on line 2 2 of Fig. 1. Fig. 3 is a rear elevation of the device on small scale. Fig. 4 is a face view of the sheet on which a record of cash transactions is kept. Fig. 5 is a fragmentary view showing the catch for the cash-receptacle, and Figs. 6 and 7 are detail views of the pawl employed to move the rollers for shifting the record-sheet.

Referring to the drawings, 1 designates a suitable casing, and 2 indicates a cash receptacle or drawer which is movably mounted in the casing, so that it may be opened and closed with respect thereto.

Related to the cash-receptacle is a suitable catch, as 3, which serves to secure the receptacle in closed position, and 4 indicates a spring serving to give a primary impulse to the receptacle in the direction of its opening movement when the catch is operated to release the same. The catch 3, as shown, is pivotally mounted over the cash-receptacle on a cross-piece 5 of casing 1 and formed with a shoulder adjacent its free end, which engages a projection or lug 6 on the cash-receptacle when the latter is in its closed position.

For operating the catch to release the cash-receptacle I provide a pneumatic device conveniently consisting of an air-chamber 7,

mounted above the receptacle and formed with a movable wall-section 7', which forms a part of the upper wall of the chamber. This movable section is connected with the main wall of the chamber by a suitable hinge 8, extending along the rear edge of said section, and a strip of soft flexible material 9, extending along its free edges and suitably arranged so as to permit of the movable section being swung upwardly a limited degree, the said connection being made in a suitable manner to effect an air-tight juncture between the movable section and the main wall of the chamber.

Reference-numeral 10 designates a rod which is pivotally connected with catch 3 and provided with screw-threads engaged by nuts 11, which embrace a lug 12, secured to the movable wall-section of chamber 7, whereby movement of said section is transmitted to the catch.

Reference-numeral 14 14 indicate pockets, in which slips of paper bearing records of cash transactions are deposited, one of said pockets being intended to receive slips relating to cash paid out and the other to receive slips relating to cash received. These pockets are arranged in parallel relations and suitably inclined for the slips to pass there-through by gravity, and above the upper ends of the pockets slits 14' are formed in the upper wall of the casing 1, through which the slips are passed to their respective pockets. Leading from the upper ends of pockets 14 to the air-chamber 7, each from its respective pocket, are air-passages 15 15, which are each provided with a suitable check-valve, as 16, arranged to open inwardly with respect to said chamber, and leading from each pocket adjacent its lower end is a discharge-port 17.

Reference-numeral 18 indicates a valve which is common to both of the pockets 14 and normally stands across the lower ends thereof, so as to close the same, and 19 designates a similar valve, which is also common to both pockets and normally stand in an open position relatively to the upper ends of said pockets, so that the cash-slips may be deposited therein. These valves conveniently consist of strips or bars suitably hinged to the walls of the pockets, so that they may be swung outwardly, and they are each pro-

vided on the face with a packing-strip arranged to form air-tight joints with the ends of the pockets when the valve is closed, the valve 18 being yieldingly held in closed position by a spring 18'.

Reference-numeral 20 20 designate devices for supplying air under pressure to operate pneumatic release heretofore described. These devices are identical in construction and operation, each being substantially in the form of a bellows, as clearly shown on the drawings, and each being connected with its respective pocket 14 by means of an air-discharge aperture 21, provided in the upper side wall of said pocket, the said wall conveniently forming the stationary wall of the bellows, to which the movable wall 22, carrying an air-intake valve 23, is hinged at its lower edge. Extending across and to the movable walls 22 adjacent their upper edges is a strip 23', which has secured thereto a handle 24, and confined between the projecting ends of this strip and the upper side wall of pockets 14 are V-shaped springs 25 25, which serve to yieldingly hold said walls in open position. Pivotally connected with valve 19 is a rod 25', which is slidably engaged with the handle 24 and is provided with a head 26 rearwardly of said handle, the said handle normally bearing against the head under pressure of the springs 25, and thereby holding the valve 19 in open position against tension of a spring 27, which serves to close said valve during the primary advance of said handle to operate the bellows.

28 indicates a lever pivotally mounted intermediate the bellows and connected at its lower end with the valve 18 by means of the link connection. (Clearly shown in Fig. 2.) This lever is operated to open valve 18 during final advance movement of the handle 24, the same being effected by means of the lug 29, secured to the strip 23' and engaging the upper end of the lever during said movement.

30 designates a chute extending from the lower ends of pocket 14 to the compartments 31 31, formed in the lower portion of the rear end of casing 1, so as to receive the cash-slips as they fall from said chute. In the rear end wall of casing 1 a suitable aperture 32 is provided to expose the slips deposited in compartments 31 to view, and in the upper portion of the casing a compartment 33 for slips relating to goods sold on account is formed, the slips being deposited through a slit formed in the top wall of said compartment.

Reference-numeral 34 and 35 indicates suitable rollers for shifting the record-sheet R. These rollers are rotatably mounted in parallel relation on suitable stands 36, secured to a platform 37, arranged beneath the top of casing 1 and hinged to the front wall thereof.

38 indicates a pawl pivotally mounted adjacent one end of valve 19 and provided with a spring-pressed dog 39 for engagement with a ratchet 40, secured to the axle of roller 34. Fastened to valve 19 is a finger 41, which engages with the stem of pawl 38 and serves to advance the pawl when the valve is opened, while a spring 42, connected with said pawl, serves to retract the same as the valve is closing. Engaging with the ratchet 40 is a stop-pawl 43, which is formed with a resilient stem secured to the adjacent stand 36, and engaging this pawl is trip 44, which is pivotally mounted on said stand. Above the roller 35 and extending parallel thereto is a backing-strip 45, which is mounted on platform 37 and over which the record-sheet passes, and immediately over this strip a slit 46 is provided in the top wall of casing 1 to expose said sheet for writing thereupon, the sheet passing from the said strip between the rollers and being shifted thereby during each advance of the pawl 38.

The forward portion of the top wall of casing 1 is hinged to the casing at *b*, so that this portion may be raised when desired to replace the record-sheet. The used sheet is removed by raising the platform 37 to disengage ratchet 40 from pawl 38, when the trip 44 is operated to disengage pawl 43 and the record-sheet then grasped and pulled upwardly.

When cash is received for goods sold and the cash-slip has been prepared, the same is deposited in the slit 14', intended for the slip relating to cash received, the cash-slip dropping into its respective pocket 14, where it is retained by valve 18 and covers the discharge-port 17, leading from said pocket. A record of the transaction is now made on the record-sheet R in the column adjacent said slit and the handle 24 then grasped and drawn forwardly, sliding upon rod 25'. During advance of the handle the valve 19 is closed by action of its spring, thereby closing the upper ends of the pockets and permitting the spring 42 to retract pawl 38. The air from the bellows relating to the pocket containing the cash-slip is therefore directed through the respective air-passage 15 to the air-chamber 7 and serves to raise the section 7', thereby tripping catch 3 and permitting spring 4 to move the cash-receptacle, the air from the other bellows in the meantime discharging through the discharge-port 17 relating to the other pocket. As the handle 24 approaches the limit of its forward movement the lug 29 operates lever 28, and thereby opens valve 19, permitting the cash-slip to pass into its respective compartment 31, where it lies exposed to the view of the purchaser. The handle 24 is now released and the cash received deposited in the receptacle 2, which is then closed, the catch 3 having in the meantime been per-

mitted to fall into position for engagement with lug 6, owing to escape of air through vent-valve V, connected with chamber 7. As the handle 24 is returning to normal position under action of the springs 25 it engages the head on rod 25', and thereby opens valve 19 and advance pawl 38 to operate the roller 34 through the medium of finger 4'.

When cash is to be paid out, the operation is identical to that heretofore described, excepting that the slip or bill bearing a record of the transaction is deposited in the other pocket and a record made on the record-sheet R in the column adjacent the slit 14', related to said pocket. If cash has been received on a sale and it is desired to pay a bill at the same time, the slips relating to the two transactions are deposited in their respective pockets and the lever 24 operated as before. To relieve the air-chamber 7 of excessive air-pressure imposed by directing the air from both bellows thereto, I provide the chamber with a suitable relief-valve, as V'.

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

1. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a check-controlled fluid-operative means for operating said drawer-locking means.

2. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a fluid-supply means, and a check-controlled fluid-operative release means for said locking means connected with said supply means.

3. In a device of the character described, in combination with the cash-drawer and the locking means thereof, check-controlled fluid-operative means for releasing said locking

means, and means related to said last means for intermittently advancing a record-sheet.

4. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a check-receiving pocket, a fluid-supply means discharging into said pocket, and fluid-operative release for said locking means, connected to said pocket so as to receive fluid therefrom when a check is inserted into the pocket.

5. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a fluid-supply means, and a fluid-operative release means for said locking means arranged to receive fluid from said supply means, but spaced therefrom so that a check can be passed therebetween for controlling the passage of the fluid from said supply means.

6. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a fluid-supply means, a fluid-controlled release means for said locking means, a pocket receiving fluid from said supply means and adapted to discharge into said release means, and valves in the upper and lower portions of said pocket.

7. In a device of the character described, in combination with the cash-drawer and the locking means thereof, a fluid-supply means, a fluid-controlled release means for said locking means, pockets receiving fluid from said supply means and adapted to discharge into said release means, and valves in the upper and lower portions of said pockets.

Signed at Seattle, Washington, this 23d day of November, 1905.

NATHAN WALLACE WILLIAMS.

Witnesses:

ARLITA ADAMS,
STEPHEN H. BROOKS.