

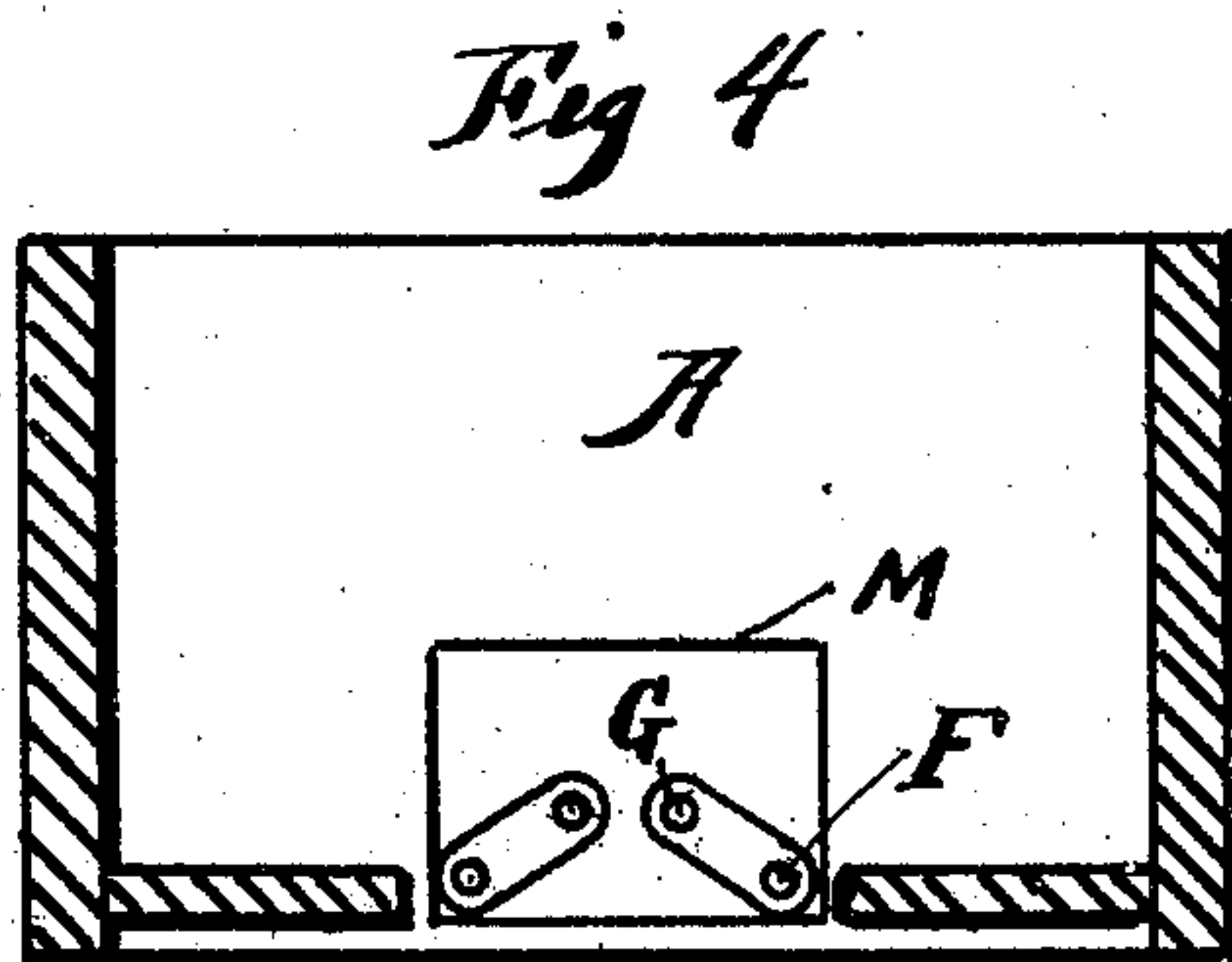
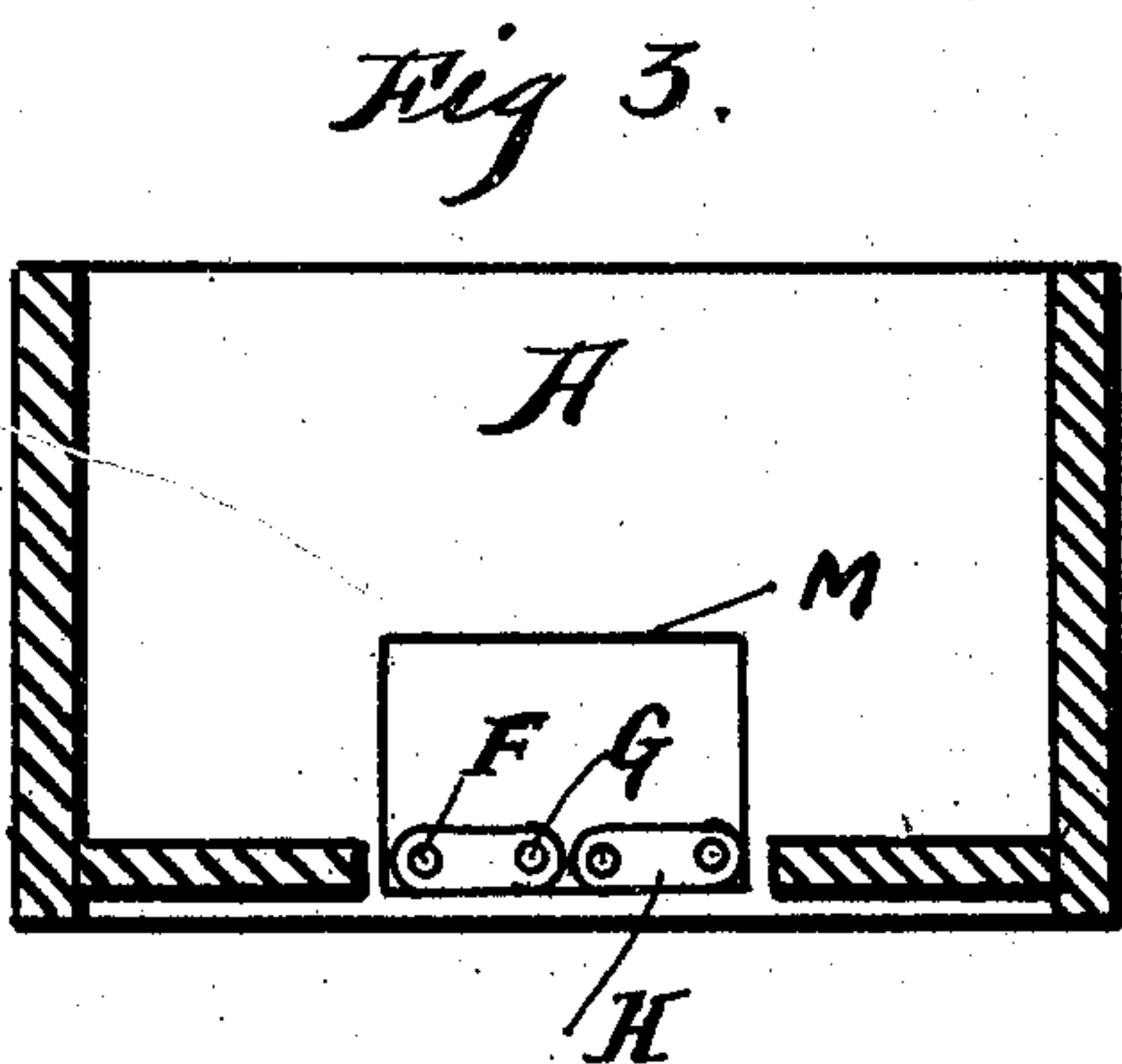
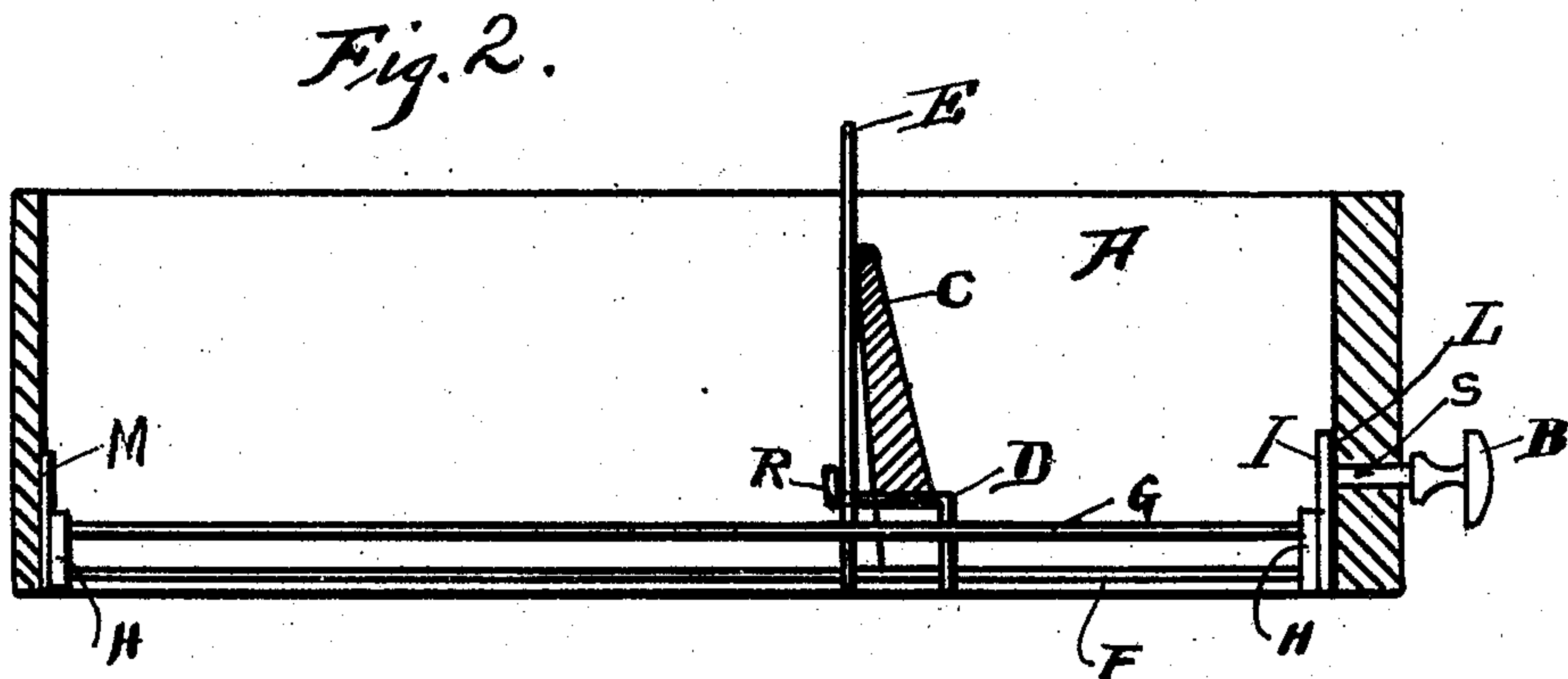
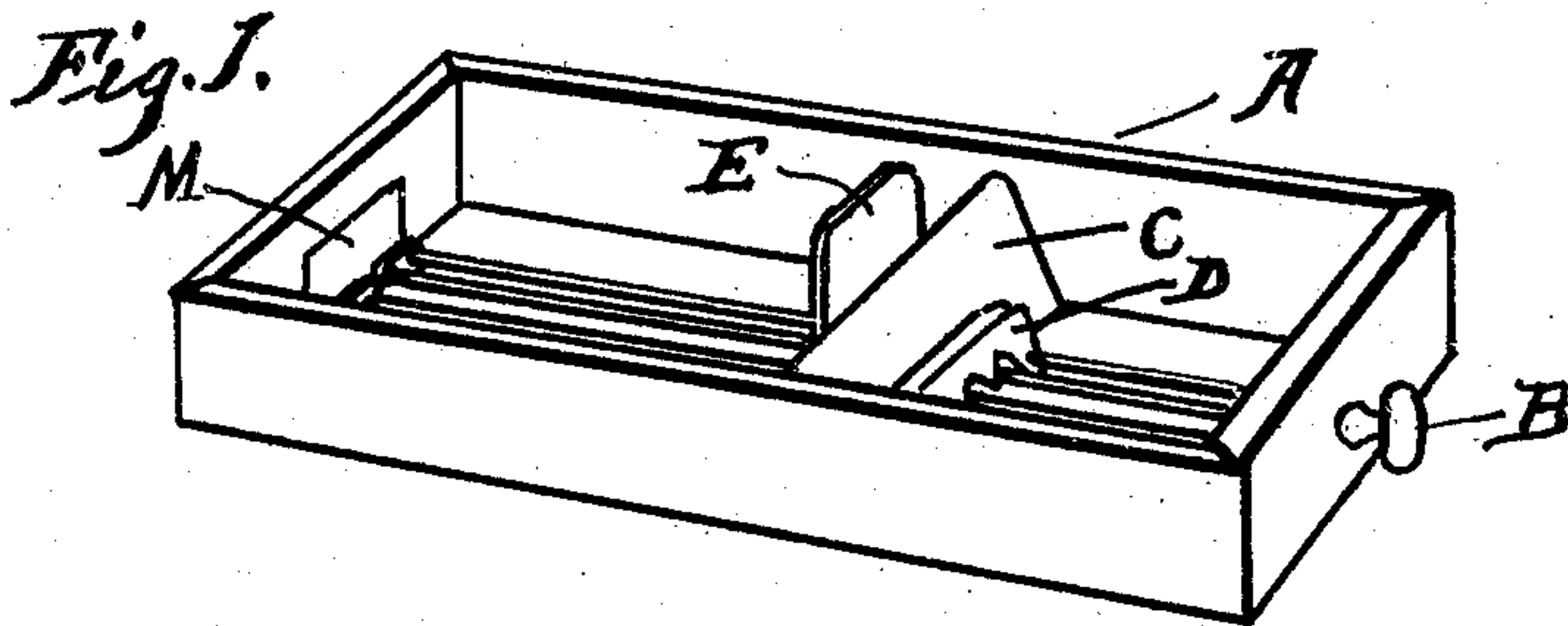
No. 806,030.

PATENTED NOV. 28, 1905.

L. C. WALKER.  
FILING TRAY.

APPLICATION FILED NOV. 1, 1902.

2 SHEETS—SHEET 1.



WITNESSES

Harry J Perkins  
Stanley Kane McDowell

INVENTOR.

Louis P. Walker

BY an ATTORNEY.

Edward Taggart

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2 SHEETS—SHEET 2.

Fig. 5.

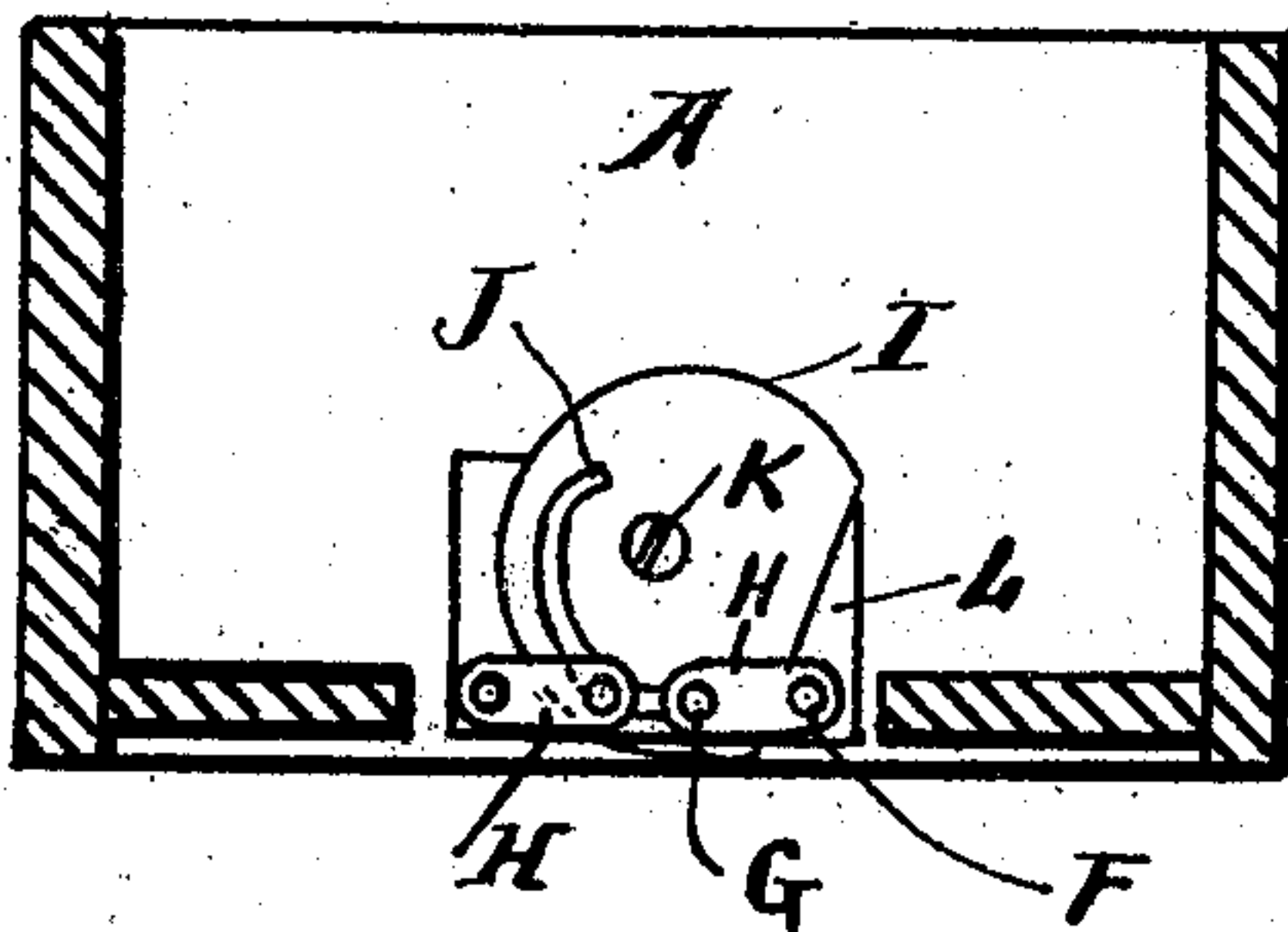


Fig. 6.

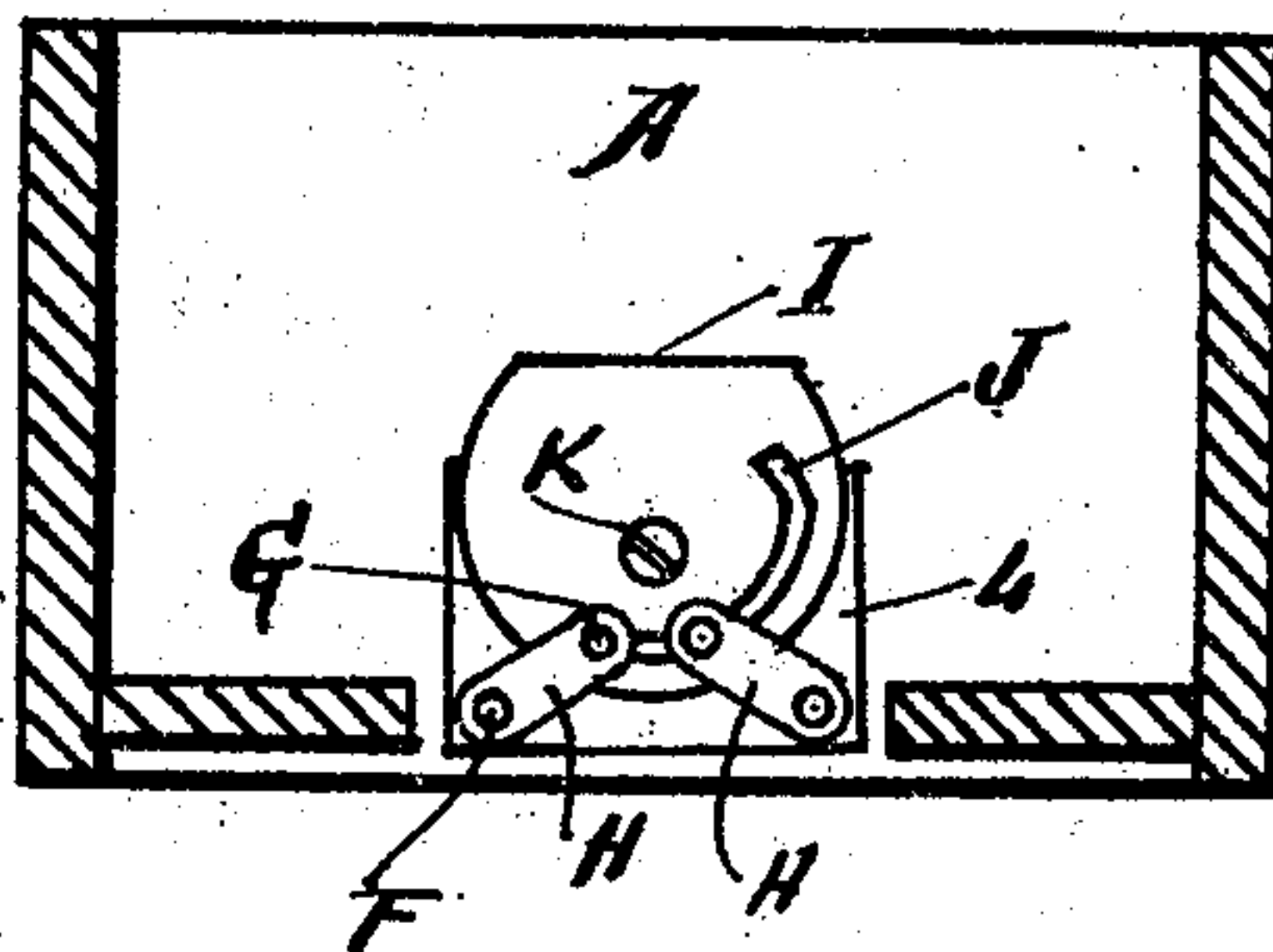


Fig. 7.

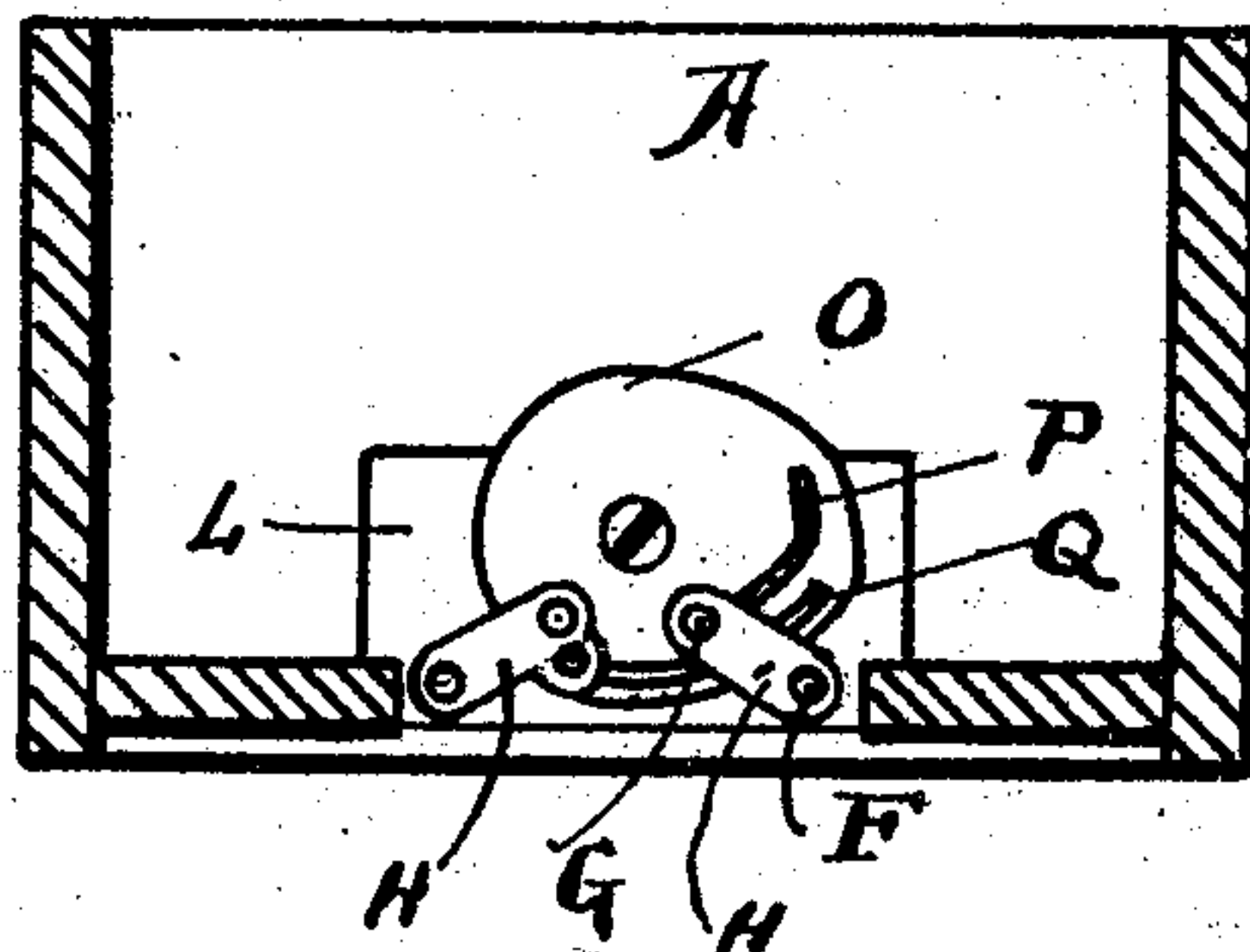


Fig. 8.

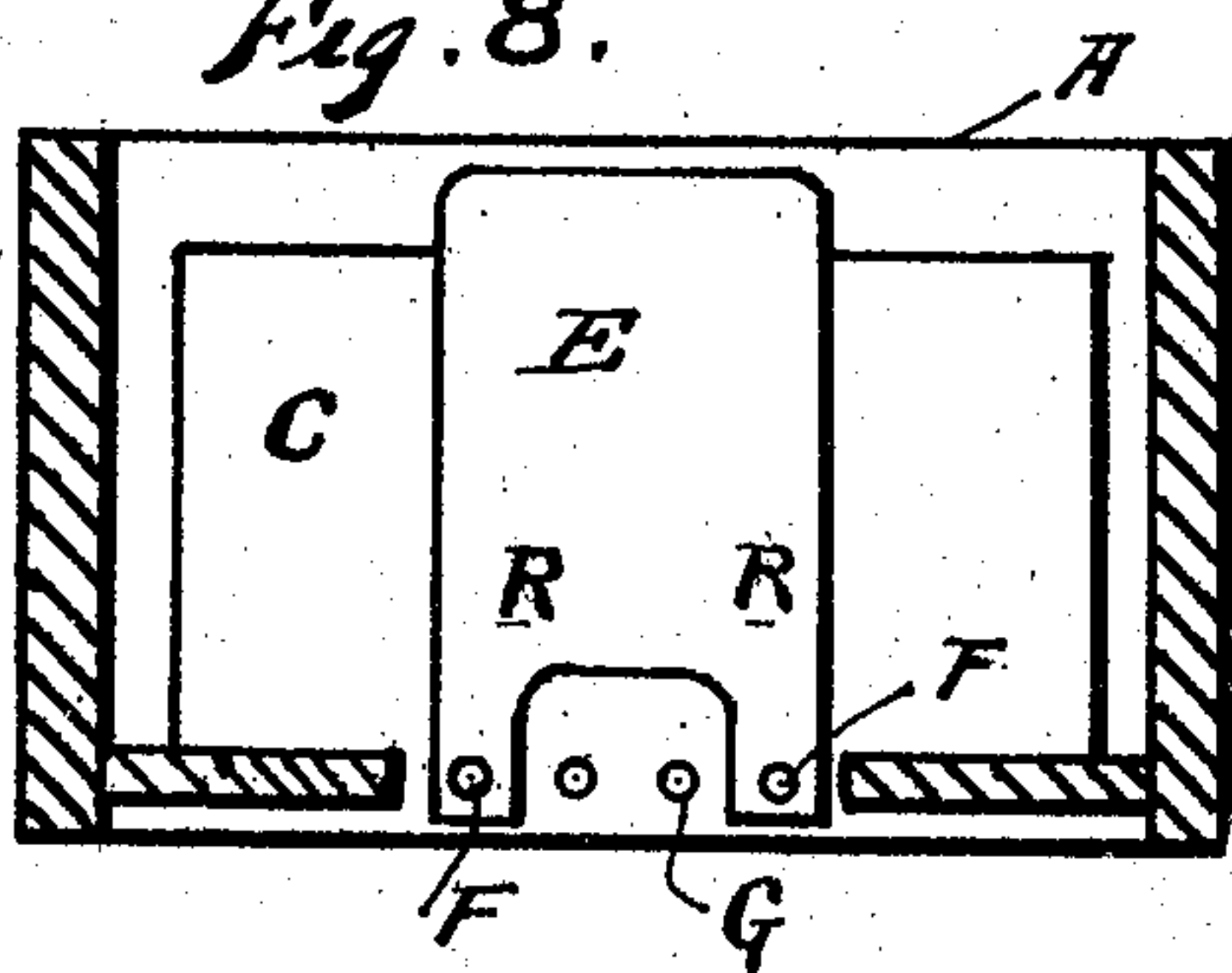
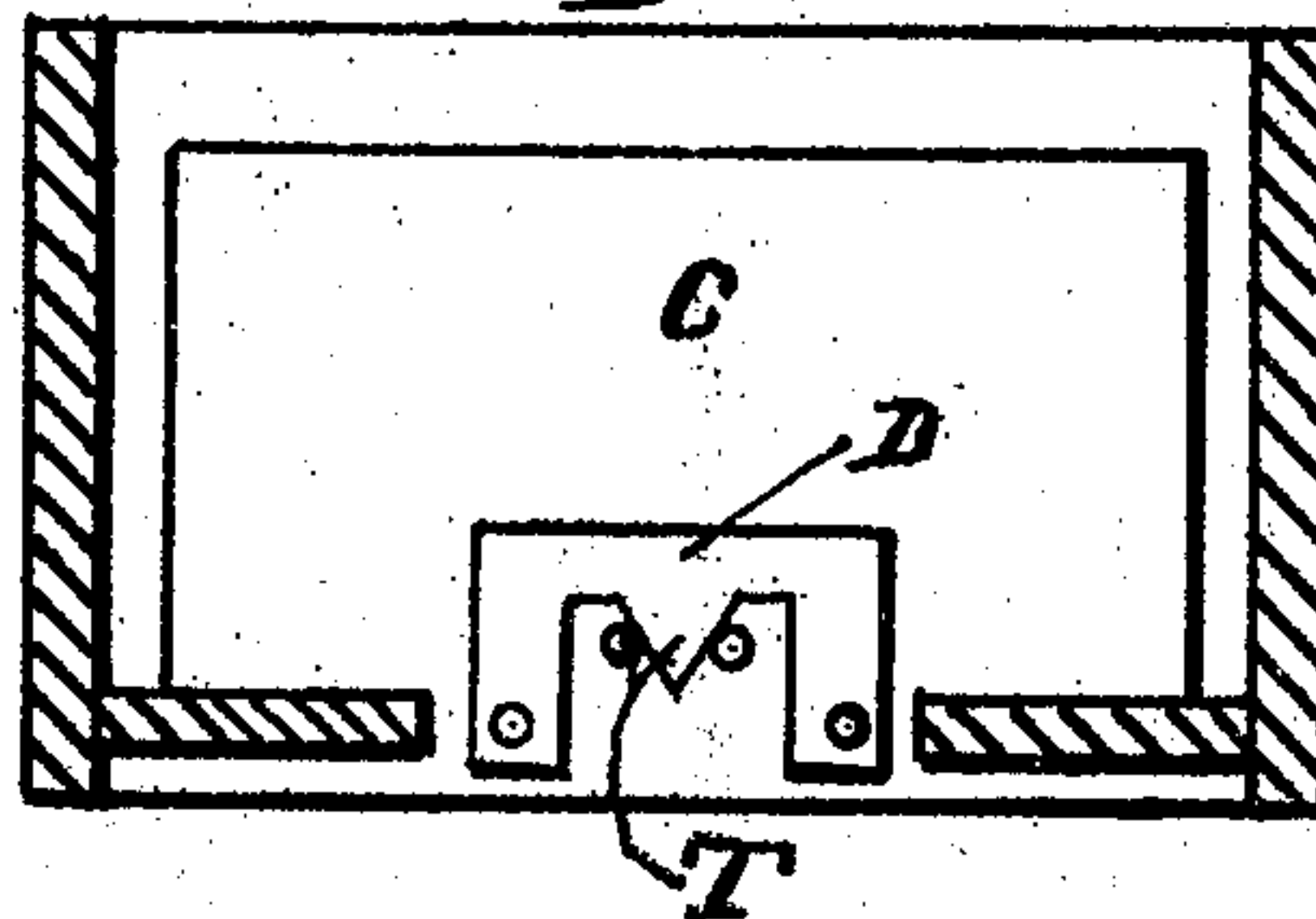


Fig. 9.



WITNESSES

Harry J Perkins

Stanley Kane McDowell, BY his ATTORNEY,

INVENTOR.

Louis C Walker

Edward Tiggant



# UNITED STATES PATENT OFFICE.

LOUIS C. WALKER, OF MUSKEGON, MICHIGAN.

## FILING-TRAY.

No. 806,030.

Specification of Letters Patent.

Patented Nov. 28, 1905.

Application filed November 1, 1902. Serial No. 129,685.

*To all whom it may concern:*

Be it known that I, LOUIS C. WALKER, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented new and useful Improvements in Filing-Trays, of which the following is a specification.

This invention relates to certain new and useful improvements in filing-cases; and the invention consists in the combination of parts and construction hereinafter particularly pointed out in the specification and summed up in the claims.

The objects of the invention are, first, to furnish a locking device for the contents of the case that is positive in its action and which can be readily operated and which will disappear below the drawer-bottom when not in operation; second, to utilize the guide-rods as guide or pivot rods for the follower and also as a support for the locking-rods; third, to utilize the follower as a stay or support for retaining the locking-rods in suitable position when said rods are in use for retaining the cards in position; fourth, certain other objects set forth and described in this specification. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of a card-filing tray constructed in accordance with my invention, and showing, among other things, the follower with the support for the locking-rods. Fig. 2 is a longitudinal sectional view through the center of the tray between the locking-rods showing the position of the follower with reference to the guide-rods and locking-rods and also showing the connection between the locking-rods and the guide-rods.

Fig. 3 is a transverse sectional view of the tray near the rear end thereof, showing the inner end plate and also the position of the guide-rods and locking-rods when said locking-rods are turned down out of locking position and below the upper surface of the drawer-bottom.

Fig. 4 is a like sectional view showing the locking-rods raised into position to engage with the cards in the tray. Fig. 5 is a transverse sectional view of the tray near the front end thereof, showing a slotted plate which operates the locking-rods. Fig. 6 is a sectional view similar to that shown in Fig. 5, but with the locking-plate turned into position to raise the locking-rods into engagement with the cards. Fig. 7 is a like sectional

view having a modified form of slotted plate, such form consisting in a plate having two slots instead of one, which necessitates a slight modification of one of the end links, which is provided with a stud engaging with the upper slot. Fig. 8 is a transverse sectional view of the tray, taken in the rear of the follower, showing a plate secured to the follower which is adapted to lock the follower upon the guide-rods. Fig. 9 is a transverse sectional view in front of the follower, showing that portion of the follower which engages with the guide-rods when said guide-rods are raised into locking position.

Similar letters refer to similar parts throughout the several views.

A represents the tray, which is adapted to receive and hold the cards.

B represents the handle or button placed in the front end of the tray. This handle is provided with the shank S, which passes through the end of the tray, as shown in Fig. 2, and engages with the slotted plate I. The engagement may be made by means of a screw K or in any other suitable manner, the connection between the handle B, the shank S, and the slotted plate I being rigid, so that by turning the handle the slotted plate is turned for the purpose of raising and lowering the locking-rods G.

I provide a follower C, consisting of a substantially inverted-U-shaped piece of suitable material, preferably wood, having one of its faces beveled and of a slightly-shorter length than the inside width of the tray. This follower straddles and is firmly attached to a plate-support D. The plate-support D is constructed, preferably, of angle-iron having one of its members turned toward the bottom of the tray and its other member turned toward the rear end of the tray and is somewhat shorter than the follower proper to which it is attached in order that the lower end of the member, which is turned toward the bottom of the tray, may fit in a recess in said bottom. The central portion of the lower end of this arm is cut away, so as to provide the downward projection T. (Shown in Fig. 9.) The uses of this downward projection T will hereinafter be described.

E is a locking-plate hinged at the point R to the other free edge of the plate-support D. This hinge may be of any known construction; but I prefer to construct it by providing the plate-support D with projections on the edge



of the member turned toward the rear of the tray and extending these projections through the locking-plate E at R and afterward loosely riveting these projections to prevent E from becoming detached. The locking-plate may then turn upon these projections for the purpose of making the proper engagement with the guide-rods F F, as hereinafter described. The locking-plate E is of substantially the same width as the length of the plate-support D in order that its lower end may fit in the recess in the bottom of the tray and has its lower end bifurcated to permit the raising and lowering of the locking-rods G G, as shown in Fig. 8.

F F are guide-rods extending from front to rear and preferably so constructed as to rock or turn a short distance for the purpose of allowing the proper movement of the locking-rods G.

G G are locking-rods, each rod G being connected or pivoted at each end to one of the guide-rods F by means of a link or bar H. This link or bar may be made integral with the guide-rod or may be made rigid or pivoted thereto in any other suitable manner, the guide-rods serving also as ways for the follower, each guide-rod passing through a hole in the plate D and another hole registering therewith in the plate E, the opening through the plate E being of such size that when the plate E is placed in a perpendicular position the follower may be moved in either direction upon the guide-rods; but when the plate E is turned out of perpendicular position, thus turning on its hinge at R, it will come into engagement with the guide-rods and be locked thereby. The plate I is provided with a slot J, as fully shown in Figs. 5 and 6. Each locking-rod has a pin or stud which engages with the slot J, so that when the slotted plate I is turned from the position shown in Fig. 5 the two locking-rods will be raised into locking position, as shown in Fig. 6, and by reversing the movement of the slotted plate I the locking-rods will be carried downwardly below the upper surface of the bottom of the tray and lie in the position shown in Fig. 5. The ends of the rods G G may be extended into the slots and form the studs which operate or control the movement of the locking-rods.

In Fig. 7 I have shown the slotted plate by O and have also shown two slots, one indicated by P and the other by Q. The movement of this slotted plate O will give to the locking-rods the same motion as with the movement of the slotted plate I.

I prefer to use a plate (shown by M) at the rear end of the tray into which the guide-rods F F are journaled at their rear ends. However, this plate might be dispensed with and the rods journaled directly in the end of the tray.

The locking-rods G G, extending as they do

from the front to the rear of the tray, are liable to be pressed toward each other when in use, and in order to obviate this I so construct the follower that the downward projection T on the vertical arm of the plate-support D is interposed between the two rods and prevents the same from being pressed together. This arrangement greatly increases the efficiency of the rods and absolutely prevents them from allowing the cards to become disengaged therefrom.

In front of the slotted plate I and between the same and the front end of the tray I prefer to use a plate which is shown in the drawings by L. This plate L should extend down far enough to receive the front ends of the guide-rods.

By the construction above described, the locking-rods, being attached by links H to the guide-rods, are held rigidly in place, and by means of said links or bars H, are held at proper distance apart and are made to travel, by means of the slotted plate I, in the proper direction to lock the cards into the tray. By journaling the guide-rods below the upper surface of the bottom of the tray I am able to turn the locking-rods into a position below the upper surface of the tray, so that the cards fitting into the case rest upon the bottom of the tray without coming into contact even with the guide-rods or the locking-rods. By the use of the downward projection (shown by T) I am enabled to retain the locking-rods always in proper position without reference to the position of the follower.

The device constructed as above described is effective in operation, not liable to get out of repair, and securely retains the cards in position. The follower, constructed as described, can be readily moved in either direction and can be locked in any position required.

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

1. The combination with a tray of a locking-rod for the contents of the tray, a guide-rod extending from the front to the rear of the tray, a follower movable on said guide-rod, a connection between the locking-rod and the guide-rod at either end of said locking-rod for supporting said locking-rod, and means for raising and lowering said locking-rod into and out of position, substantially as described.

2. The combination of a tray, an oscillatory guide-rod extending from the front to the rear of the tray, a follower movable upon the guide-rod, a locking-rod bodily movable with respect to the guide-rod and connections between the locking-rod and the guide-rod for rocking the guide-rod when the locking-rod is raised or lowered, substantially as described.

3. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the



front and rear ends of the tray, a follower movable upon said guide-rod, a locking-rod, means for connecting said guide and locking rods together, and means for raising and lowering said locking-rod into and out of position, said locking-rod adapted when raised to lock the contents of the tray in place and when lowered to seat in the said recess, substantially as described.

4. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon said guide-rod, a locking-rod, a link at each end of the guide-rod for connecting it to the locking-rod, and means for raising and lowering said locking-rod into and out of position, said locking-rod adapted when raised to lock the contents of the tray in place and when lowered to seat in said recess.

5. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon and locked by said guide-rod, a locking-rod, a link at each end of the guide-rod for connecting it to the locking-rod, and means for raising and lowering said locking-rod into and out of position, said locking-rod adapted when raised to lock the contents of the tray in place and when lowered to seat in said recess.

6. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon said guide-rod, a locking-rod, links connecting each end of the guide-rod to each end of the locking-rod, and a plate engaging with said locking-rod and adapted when operated to move said locking-rod into and out of locking position, substantially as described.

7. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon and locked by said guide-rod, a locking-rod, links connecting each end of the guide-rod to each end of the locking-rod, and a plate engaging with said locking-rod and adapted when operated to move said locking-rod into and out of locking position, substantially as described.

8. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon said guide-rod, a locking-rod, a link at each end of the guide-rod for connecting it to the locking-rod, and an eccentrically-mounted plate engaging with said locking-rod and adapted when operated to move said locking-rod into and out of locking position, said locking-rod adapted when raised

to lock the contents of the tray in place and when lowered to seat in said recess, substantially as described.

9. The combination of a tray having a recessed bottom, a guide-rod seated in said recess and journaled at its opposite ends in the front and rear ends of the tray, a follower movable upon and locked by said guide-rod, a locking-rod, a link at each end of the guide-rod for connecting it to the locking-rod, and an eccentrically-mounted plate engaging with said locking-rod and adapted when operated to move said locking-rod into and out of position, said locking-rod adapted when raised to lock the contents of the tray in place and when lowered to seat in said recess, substantially as described.

10. The combination with a suitable tray of a pair of locking-rods, suitable means for raising and lowering said locking-rods, a follower and suitable means carried by the said follower for supporting the locking-rods in proper position to retain the cards in the tray when said locking-rods are in locking position substantially as described.

11. The combination with a tray of a pair of guide-rods supported at one end by the front of the tray and at the other end by the rear end of the tray, the follower moving on said rods, a pair of locking-rods, each rod being rigidly connected at each end to one of the guide-rods, a downward projection from the follower between the locking-rods and in position to retain the locking-rods in locking position, substantially as described.

12. In combination with a pair of guide-rods F a pair of locking-rods G, links for connecting the guide-rods and locking-rods at each end thereof, a slotted plate I, a pivot connected to the locking-rods and engaging with the said slot, a handle B, and a shank S connected to the said slotted plate and adapted to raise and lower the locking-rods G, said tray having a slot in its bottom adapted to entirely receive said locking-rods when not in locking position, substantially as described.

13. The combination with a suitable tray of a pair of locking-rods and plates H, H, suitable means for raising and lowering said locking-rods, a follower and suitable means carried by the said follower for supporting the locking-rods in proper position to retain the cards in the tray when said locking-rods are in locking position, substantially as described.

14. The combination of a tray having a recessed bottom, guide-rods seated in said recess and journaled at their opposite ends in the front and rear ends of the tray, locking-rods connected at their ends to the guide-rods and adapted to turn therewith, means for raising and lowering said locking-rods into and out of locking position, a follower movable upon said guide-rods, means carried by said follower for holding said locking-rods when raised in locking position, and a locking-plate



movably connected to said follower having its lower end adapted to engage and disengage with said guide-rods for locking and unlocking said follower upon the guide-rods, substantially as described.

15. The combination of a tray having a recessed bottom, guide-rods seated in said recess and journaled at their opposite ends in the front and rear ends of the tray, locking-rods connected at either end to the guide-rods and adapted to turn therewith, means for raising and lowering said locking-rods into and out of locking position, a follower movable upon said guide-rods, said follower having a downward projection on its lower end for holding said locking-rods when raised in locking position, and a locking-plate movably connected to said follower having its lower end adapted to engage and disengage with said guide-rods for locking and unlocking said follower upon the guide-rods, substantially as described.

16. The combination of a tray having a recessed bottom, guide-rods seated in said recess and journaled at their opposite ends in the front and rear ends of the tray, locking-rods connected at either end to the guide-rods and adapted to turn therewith, means for raising and lowering said locking-rods into and out of locking position, a follower consisting of a substantially inverted-U-shaped piece of suitable material having one of its faces beveled, a plate-support rigidly secured to said follower and movable upon said guide-rods and having a downward projection for holding said locking-rods in locking position when raised, and a locking-plate movably connected to the plate-support and adapted to lock said follower upon the guide-rods, substantially as described.

17. The combination of a tray having a recessed bottom, guide-rods seated in said recess and journaled at their opposite ends in the front and rear ends of the tray, locking-rods

connected at either end to the guide-rods and adapted to turn therewith, means for raising and lowering said locking-rods into and out of position, a follower consisting of a substantially inverted-U-shaped piece of suitable material having one of its faces beveled, a plate-support rigidly secured to said follower and movable upon said guide-rods and having a downward projection for holding said locking-rods in locking position when raised, and a locking-plate movably connected to the plate-support and adapted to engage with said guide-rods for locking said follower, substantially as described.

18. The combination with a tray having a slotted bottom, of a guide-rod mounted within the slot and extending from the front to the rear of the tray, a follower movable on said guide-rod, a locking-rod for the contents of the tray, a connection between the locking-rod and the guide-rod at either end of said locking-rod for supporting said locking-rod, and means for raising and lowering said locking-rod into and out of position, said locking-rod adapted when out of locking position to rest within said slot, substantially as described.

19. The combination of a tray having a slotted bottom, of an oscillatory guide-rod mounted within said slot and extending from the front to the rear of the tray, a follower movable upon the guide-rod, a locking-rod bodily movable with respect to the guide-rod and adapted when out of locking position to lie within said slot, and connections between the locking-rod and the guide-rod for locking the guide-rod when the locking-rod is raised or lowered, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LOUIS C. WALKER.

Witnesses:

A. C. DENISON,

EDWARD TAGGART.