

J. M. SULLIVAN.
COIN CONTROLLED BOOK STAND.

No. 505,995.

Patented Oct. 3, 1893.

Fig. 1.

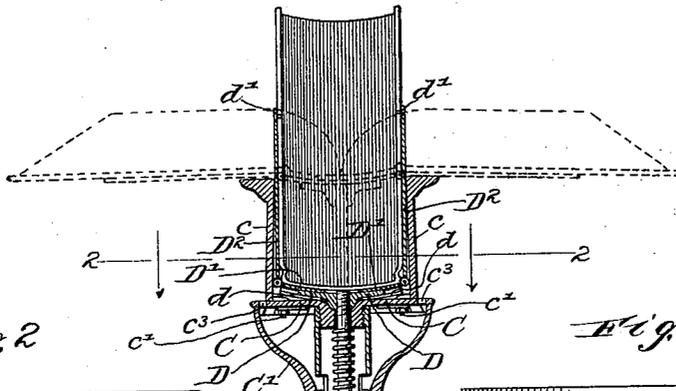


Fig. 2.

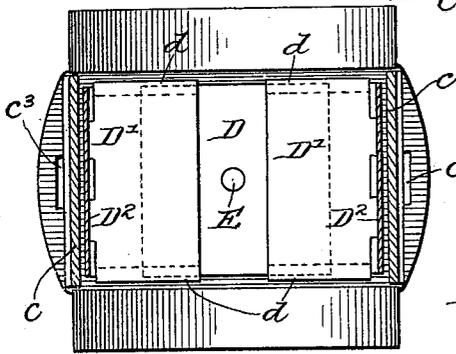
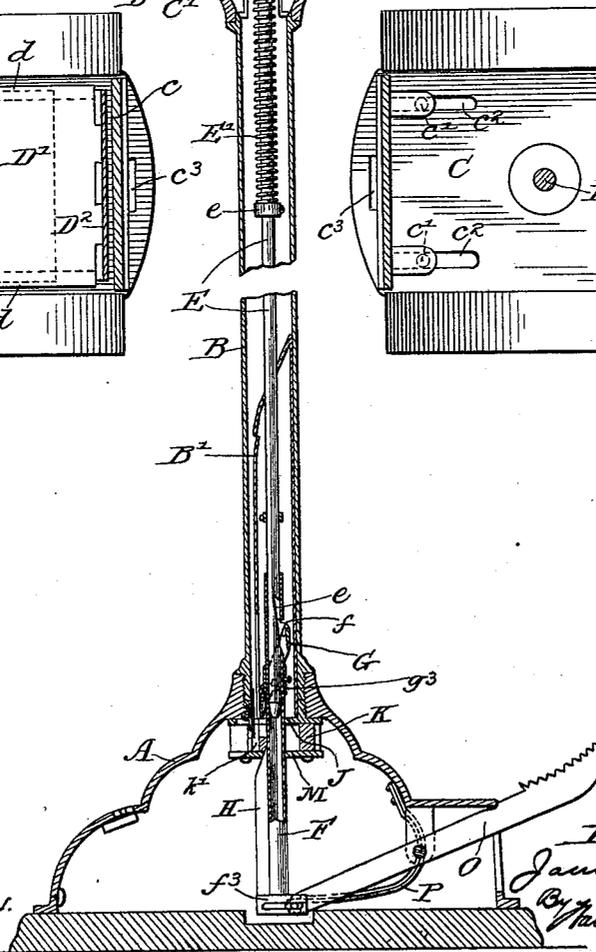
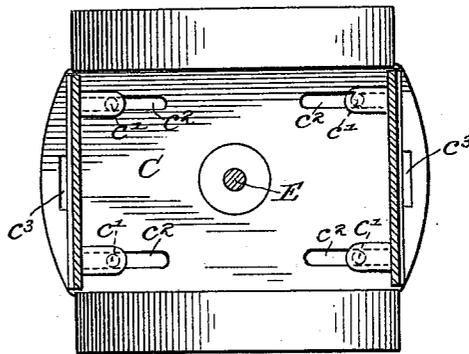


Fig. 3.



Witnesses:

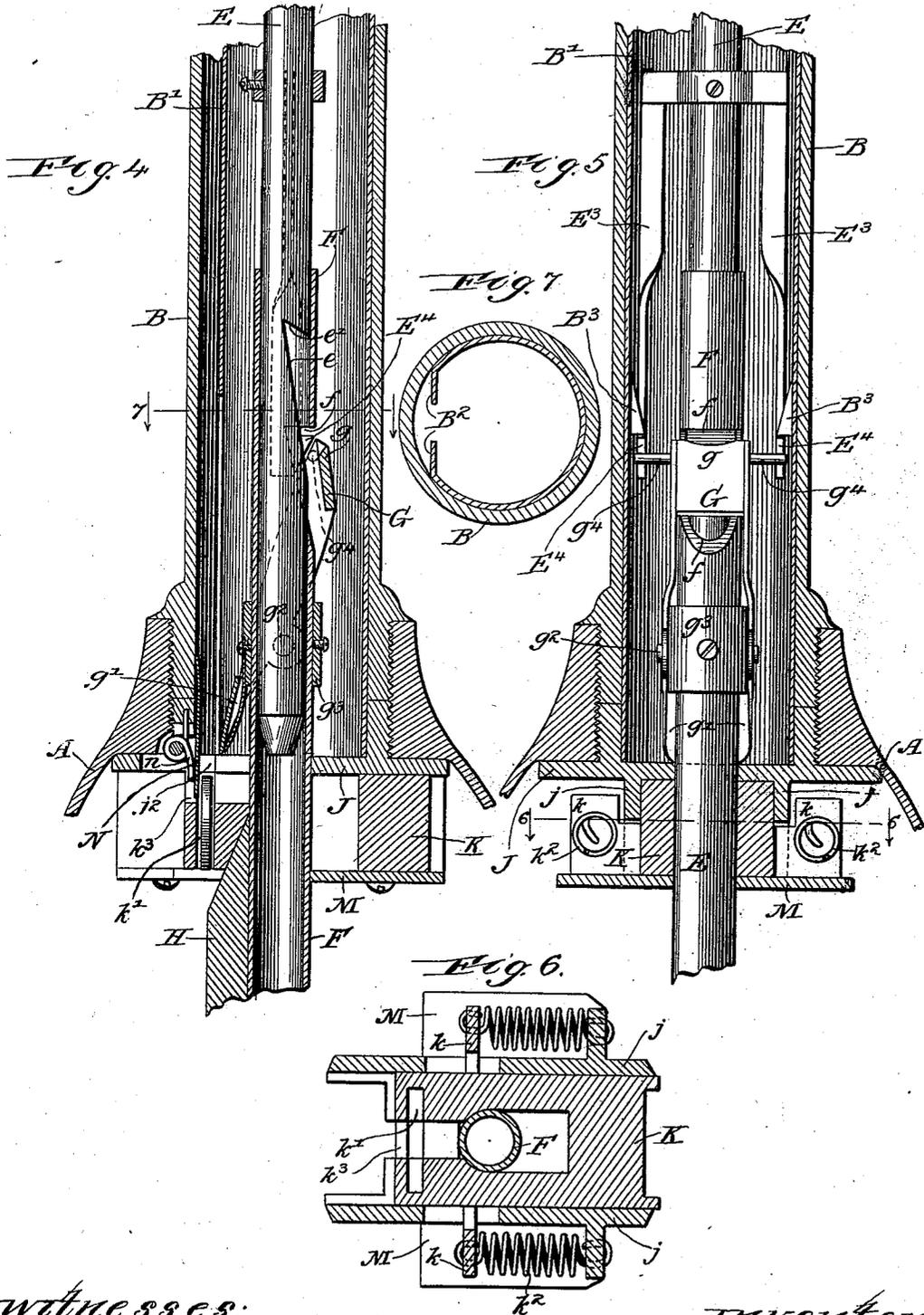
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witnesses:
 Wm. M. Rheem.
 Wm. F. Fleming

INVENTOR:
 James M. Sullivan
 By Walter H. Chamberlain, Atty.

UNITED STATES PATENT OFFICE.

JAMES M. SULLIVAN, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
GEO. E. ADAMS, OF SAME PLACE.

COIN-CONTROLLED BOOK-STAND.

SPECIFICATION forming part of Letters Patent No. 505,995, dated October 3, 1893.

Application filed November 30, 1892. Serial No. 453,615. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. SULLIVAN, a citizen of the United States, residing at Chicago, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Coin-Controlled Book-Stands; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a coin controlled mechanism, adapted more particularly to form a stand upon which a book, such as a city directory, or an album containing pictures or views can be placed, and can only be opened and examined when a coin, such as a penny or nickel has been introduced into the mechanism.

It consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings: Figure 1. is a vertical section of my stand; Fig. 2. a plan view; Fig. 3. a plan view with the plate D removed; Fig. 4. a vertical section of a portion; Fig. 5. a vertical section at right angles with Fig. 4; Fig. 6. a horizontal section through the receiver; Fig. 7. a horizontal section on the line 7—7 of Fig. 4.

In carrying out the invention A represents a suitable base, or standard, preferably made of metal and hollow, and provided with an upwardly extending tube B. Engaged to the upper end of the tube is a plate C provided with an upwardly extending flange *c* at each end. These flanges are made adjustable from and toward each other by bolts *c'* passing through slots *c²* in the plate C. Above the plate C is a plate D provided with a rod E projecting from its under side through the plate C and longitudinally through the tube B. A spring E', one end bearing against the collar *e* on the rod E and the other end bearing against the plate C, tends to keep the plate D and rod E normally in the lowermost position.

D' are supplemental plates engaged to the plate D by having their ends folded around the plate D as at *d*, but free to slide back and forth thereon.

D² are wings hinged to the edges of the plates D'. They are provided on their free ends with orifices *d'* through which rivets, or screws may be passed into the cover of the book. Now as will be observed when the rod E is forced upward from below the plate D is elevated and as soon as the plate D reaches the upper edges of the flanges *c*, the wings carrying the covers of the book drop outward so that the book is opened. When the upward pressure on the rod E is removed, the spring E' forces the rod downward, thus causing the flanges *c* to bear upon the wings D² and close the book.

I will now describe the mechanism whereby the rod E may be forced upward. F is a tube somewhat larger than the diameter of the rod E, and provided near its upper end with a recess *f*. G is a pawl or dog, shaped to embrace the tube, the upper end *g* being adapted to enter the recess *f* in the tube, while the lower end *g'* is on the opposite side of the tube, the dog being pivoted at *g²* to the collar *g³* which is keyed to the tube. In the lower end of the rod E is a notch or recess *e*. Now as will be seen when the upper end of the dog is pressed into the recess *f* in the tube, its upper end will, when forced upward come in contact with, and bear against the shoulder *e'*, caused by the recess *e* in the rod. On the tube F and below the dog G is a rib H beveled on its upper end. Engaged to the lower end of the tube B, preferably by being screwed into the same, is a plate or casting J carrying the coin mechanism. This plate J is provided with downwardly projecting guides *j*, and engaged to the latter is a small plate or casting K. This casting has wings or projections *k* which engage the flanges, or guides *j* on the plate J and also with the slot *k'* at one end. This slot is open at both ends and forms the coin receptacle. Engaged to the bottom of the flanges or guides *j* is a plate M. As will be observed the casting K is free to slide horizontally to and fro, but is held normally in the position shown in Fig. 6 by the springs *k²*. When in this normal position the slot *k³* is directly beneath the opening *j³* in the plate J. Pivoted in this plate at the point where it is engaged to the tube is a spring latch or lever N normally held out of

engagement with the end g' of the dog G by the spring n . The lower end of this spring latch or lever terminates adjacent to the sliding coin receptacle K, and the receptacle is notched as at k^3 so that it can move freely back and forth without engaging the lower end of this latch N. Now as will be observed if a coin is placed in the coin receptacle when the latter is in its normal position the lower edge of the coin will rest on the plate M and its body will cover the openings k^3 in the coin receptacle walls. Now if the tube F is forced upward the coin receptacle will be forced outward by the beveled end of the rib H, carrying with it the coin, and the latter will of course strike the lower end of the lever N, and will press the upper end of this lever toward the tube F where it will come in contact with the lower end g' of the pawl G. This will press the latter toward the tube, and this will throw the upper end g into the recess f in the tube. As soon as the tube in its upward movement carries the upper end of the dog against the shoulder e' in the rod, the dog will engage the rod and force it up also, with the result above described. But should there be no coin in the coin receptacle the latch N will not be engaged and consequently the dog G will not engage the rod and the latter will not be forced upward, even though the tube F is forced upward.

In order to apply power to the tube F to force it upward, I pivot in the base A the lever O. The end of this lever is pivoted in the slotted flanges f^3 on the lower end of the tube F, so that pressure on the outer end of the lever O will force the tube upward. Springs P tend to return the tube F to its normal position after the pressure has been relieved from the lever O.

At each end of the plate C is a coin slot c^3 and below this the funnel shaped plate C' made hollow so that the coin is guided down into the tube B and down the same until it strikes the inclined end of the interior tube B'. This interior tube is flattened on one side as at B^3 , and the coin drops down between the walls of the two tubes through the plate or casting J into the coin receptacle in the piece K.

In order to prevent a designing person from taking hold of the book and pushing it up without placing a coin in the slot, I provide the latch E³. This latch is made of spring metal, one end rigidly engaged to the rod B, while the other end is provided with a beveled catch E⁴. This catch when the rod is in its lower position engages with beveled teeth B³ on the interior of the interior tube B'.

On each of the upper ends of the pawl or latch G is a pin g^4 , which, as the pawl is forced upward strikes the beveled end E⁴ of the spring latch E³ and disengages the latter from the teeth B³ on the interior of the tube. Thus the elevation of the rod E is prevented until the pawl has been first forced up and disengages the latch E⁴ from the teeth.

It is obvious that various details of my invention might be altered without affecting the scope of my invention, and I would of course have it understood that I contemplate any of the usual variations of form to which the above mechanism might be subjected.

What I claim is—

1. In a book stand, the combination, with a book holder consisting of a plate having pivoted wings engaged to the covers of the book and stationary wings or flanges adjacent to said pivoted wings, adapted to hold the pivoted wings in a vertical position when the holder plate is in its lower position, of a vertically movable rod engaged to said holder plate, power mechanism adjacent thereto, and coin controlled mechanism connecting the power mechanism and the rod, substantially as described.

2. In a book stand, the combination of a book holder plate provided with adjustable pivoted wings, stationary wings adapted to hold the latter vertically when they are in their lower position, a vertically movable rod engaged to said holder plate, mechanism adjacent to said rod to move the latter vertically, and coin controlled mechanism connecting the rod and actuating mechanism, substantially as described.

3. In a book stand, the combination of a book holder plate, adjustable pivoted wings thereon adapted for engagement to the covers of the book, adjustable stationary wings adjacent to the pivoted wings, a vertically movable rod engaged to said holder plate mechanism connected with said rod for moving the latter vertically and coin controlled mechanism controlling the connection between the rod and actuating mechanism, substantially as described.

4. In a book stand, the combination of a holder plate, wings pivoted thereto, adapted for engagement with the book covers, stationary wings adjacent to the pivoted wings, a vertical rod engaged to said holder plate, mechanism engaged to said rod to move it vertically, a spring to hold the rod normally in its lower position, and coin controlled mechanism controlling the connection between the rod and actuating mechanism, substantially as described.

5. In a book stand, the combination of a book holding apparatus a vertical rod engaged to said book holder, mechanism engaged to said rod for moving it vertically and coin controlled mechanism controlling the connections between the rod and actuating mechanism, and a spring catch adapted to form an engagement between said rod and a stationary part, and hold the rod from its vertical movement until intentionally released, substantially as described.

6. In a book stand, the combination, with a vertical rod, carrying on its upper end a book holder, and requiring an upward movement of the rod to allow the book to be opened, of mechanism for moving said rod vertically,

consisting of a vertically movable tube surrounding said rod, and provided with a pawl or latch adapted to engage said rod, means for moving said tube vertically, and coin controlled mechanism adjacent to the tube for causing the pawl to engage the rod when a predetermined coin is inserted, substantially as described.

7. In a book stand, the combination, with a vertical rod carrying a book holding apparatus, of mechanism connected with said rod for moving it vertically consisting of a tube surrounding said rod and provided with means to move it vertically, a pawl or latch on the tube adapted to engage said rod and move it vertically, a lever adjacent to said pawl or latch, adapted when moved to bear upon the latter and cause it to engage the rod and a horizontally movable slide provided with a coin receptacle and a recess so that it will not engage said lever when no coin is in the receptacle, but when provided with a coin will bear upon the lever, and through the latter cause the pawl or dog to engage the rod, substantially as described.

8. In a coin controlled apparatus, the combination of a rod, a tube surrounding the same, a pawl or latch on the tube adapted to engage the rod, a lever adjacent to the pawl or latch and independent of the tube adapted to move the pawl or latch into engagement

with the rod and a slide provided with a coin receptacle, the walls of which are recessed to permit the slide to pass the said lever when no coin is in the receptacle, a coin in the receptacle adapted to engage and move said lever and a beveled rib on the tube adapted to engage and move said slide, substantially as described.

9. In a coin controlled book stand, the combination of a book holder adapted to be raised before the book can be opened, a vertical rod engaged to said book holder, and extending to a point adjacent to the floor, a coin controlled mechanism for moving said rod vertically consisting of a vertically movable tube surrounding said rod, and provided with a pawl or catch that engages the rod, a lever adapted to engage said catch to move it into engagement with the rod, a slide carrying a coin receptacle adapted to engage said lever when provided with a coin and a beveled rib on the tube adapted to engage slide when the tube is moved vertically, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

JAMES M. SULLIVAN.

Witnesses:

GEO. E. ADAMS,
W. H. CHAMBERLIN.