

(No Model.)

A. S. WRIGHT.
MAIL BOX.

No. 421,643.

Patented Feb. 18, 1890.

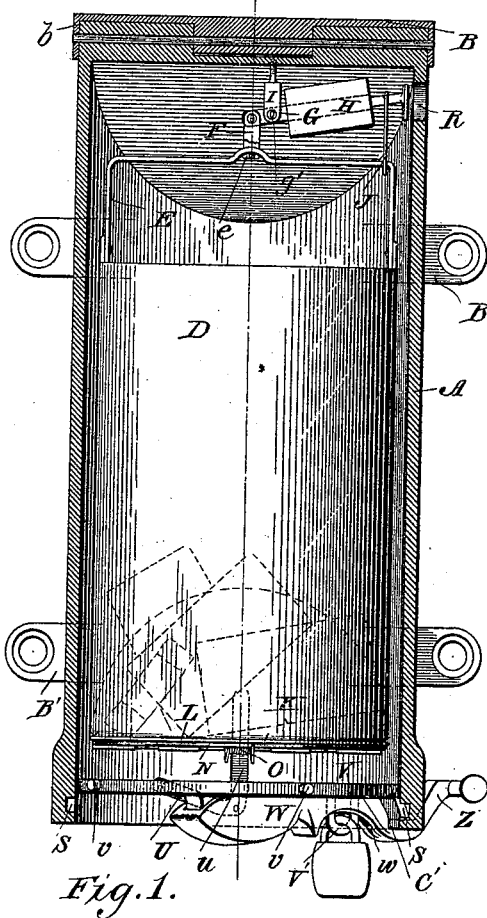


Fig. 1.

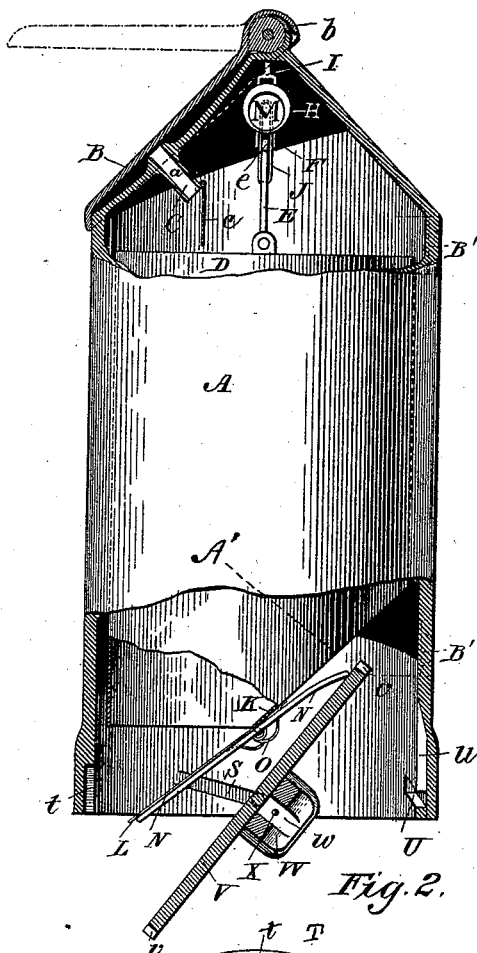


Fig. 2.

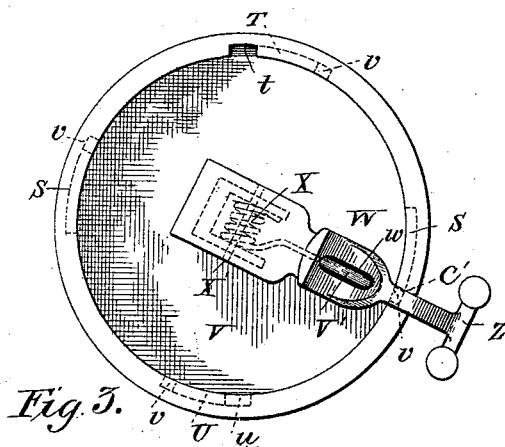


Fig. 3.

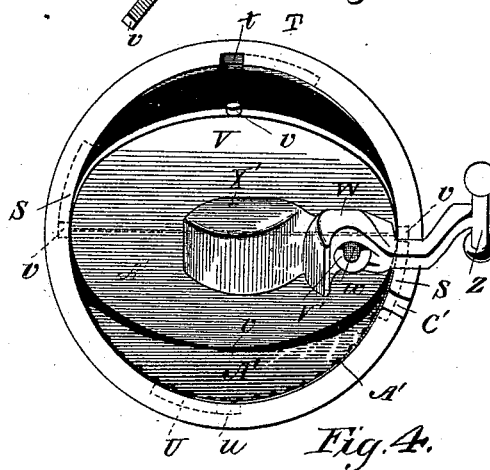


Fig. 4.

WITNESSES.

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UNITED STATES PATENT OFFICE.

ALBERT S. WRIGHT, OF LOWRY CITY, MISSOURI.

MAIL-BOX.

SPECIFICATION forming part of Letters Patent No. 421,643, dated February 18, 1890.

Application filed April 2, 1889. Serial No. 305,782. (No model.)

To all whom it may concern:

Be it known that I, ALBERT S. WRIGHT, a citizen of the United States of America, residing at Lowry city, in the county of St. Clair and State of Missouri, have invented certain new and useful Improvements in Mail-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to mail-boxes, and more especially to that class in which the bottom of the box is opened for the removal of the contents.

My object is to provide a box which shall be perfectly safe from the weather, which shall be securely protected against all fraudulent attempts to extract matter therefrom, and at the same time shall be constructed in such a manner that it can be opened and closed with great facility and dispatch by the carrier or collector.

A further object I have in view is to provide the box with a simple, cheap, and efficient registering device.

With these ends in view my invention consists in the peculiar features and combinations of parts more fully described hereinafter, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a front elevation in cross-section of my complete device, showing the operation of the registering device when mail is deposited; Fig. 2, a side elevation, partly in cross-section; Fig. 3, a plan view looking up from beneath the box, and Fig. 4 a similar view showing the box open for the removal of matter contained within it.

The reference-letter A denotes the box, which is cast in the form of a cylinder and is provided with a gable roof or covering. In the front of the roof or covering is formed the usual slot *a*, for the insertion of mail, and it is protected by the lid B, which is hinged to the top of the box. This lid B is formed at its upper end with a trough-shaped portion *b*, which covers the hinge and effectually prevents the entrance of water or other matter through the same. To the inside of the box, around the slot *a*, is secured a chute C, and to the lower extremity of this chute is hung a downwardly-curved apron *c*,

which directs the matter introduced through the slot and chute into the receptacle D.

The receptacle D is cylindrical in form and is hung within the box in the following manner: I provide a balance-rod G, which is pivoted at *g'* to a forked supporting-bar I, secured in the top of the box. To one end of the balance-rod G is hung the mail-receptacle D by means of the bail E and the U-shaped hook F, which engages an offset or notch *e*, formed at the middle of the bail, and is pivoted at the end of said rod G. On the other end of the balance-rod is situated a weight H, which is adapted to balance the receptacle. An indicator, consisting of a piece of tin or the like inscribed with the letter "M," is secured to the extreme outer end of the rod G, and this rod is limited in its play by a loop J, which embraces its outer end and the bail E. It will thus be seen that any additional weight, however small, introduced into the receptacle D will overcome the weight H and elevate the indicator M on the end of the rod.

An aperture R is formed in the box A near its top, and is so situated that it will register with the indicator M when the latter reaches the limit of its upward play.

The bottom of the receptacle D is partly closed by the inclined bottom piece K, and to this bottom piece is hinged the lid L, which closes the remainder of the bottom. This lid L has the form of a half-circle, and to its periphery is fastened one-half of a ring N. The other half of the ring projects back of the lid and limits the amount of opening of the same by engagement with the bottom piece K, so that when said lid has reached the limit of its opening it will lie in the same plane as the inclined bottom piece K. The lid is normally held closed by the spring O.

I will now describe my improved method of closing the bottom of the box.

The box A is cast with four grooves in its lower inside surface. The two grooves S S, opposite each other, are made straight and run back from the lower periphery of the box on opposite slopes. These grooves act as bearings for the bottom piece to turn in when opened and closed. The other two grooves T and U are made in the shape of elbows, one

portion of which inclines in the same manner as the grooves S S. The other portions *t* and *u* of the grooves are made vertical, but run in opposite directions, the portion *t* of the groove T running down and out of the bottom of the box, and the portion *u* of the groove U running back toward the mouth of the box. I prefer to make these grooves slanting back; but it is evident that they could be made sloping forward or parallel with the lower rim of the box. The bottom piece V is provided with four lugs *v*, which engage the four grooves, respectively. Three of these lugs may be cast integral with the bottom piece, and the fourth may be secured thereto in any suitable manner after the bottom is in place. A lever W is pivoted at the middle of the bottom piece, and is held normally depressed by a spring X, placed around the pivot X'. The outer portion of this lever engages a slot C', formed in the rim of the box just above the back end of the groove S, and the bottom is thus kept from turning when the lugs have reached the end of the several grooves. A slot *w* is made in the lever W, and is engaged by a staple V', secured in the bottom piece V. Any suitable lock may be introduced into this staple to lock the lever in place. A suitable handle Z is formed on the end of the lever, so that it can be easily revolved after being released from the slot.

An inclined piece A' may be fastened in the box to prevent the mail from falling behind the bottom when the indicating device is not employed.

Suitable cleats B' will be secured to the back of the box, by means of which it may be fastened up where desired.

The construction of my device having been set forth, I will now proceed to describe its operation.

When a letter is inserted in the slot *a*, it is turned down by the apron *c'* into the receptacle D and falls upon the hinged bottom piece or lid L. The rod G being exactly balanced, this additional weight in the receptacle D will overcome the weight H on the outer end of the rod and elevate the indicator M. The letter "M" will now register with the aperture R, and inform the carrier when he passes that there is some mail-matter in the box. When the carrier or collector wishes to empty the box, he unlocks the lock in the staple V', releases the lever from the slot C', revolves the bottom piece V until the lugs reach the limit of their play in the several grooves, and then dumps the bottom piece by revolving or twisting the handle Z on the end of the lever. When the bottom is thus dumped, the opposite lugs *v v* act as pivots in the ends of the grooves S S, while the other two lugs pass up and down the grooves *t* and *u*, respectively, and out of the same. The bottom is turned until its rear end comes in contact with the inclined piece A' or the bottom of the receptacle D, as the case may be. When the mail has been dumped

into the bag, the operation is reversed. The lid is turned back, and the bottom piece is revolved until the lugs reach the ends of the several grooves, when the lever W will drop into the slot C' by action of the spring X'. When the weight of the mail-matter is removed from the receptacle, it will again be balanced by the weight H, and the indicator will drop below the aperture and out of sight. When the bottom piece V is dumped, its rear end will engage the rear portion of the ring N, and thus open the lid of the receptacle D and allow the matter contained therein to drop into the mail-bag.

It is evident that my device can be changed in many ways which might suggest themselves to a skilled mechanic, and hence I do not limit myself to the precise construction herein shown, but consider myself entitled to all such changes as come within the scope and spirit of my invention.

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

1. In a mail-box, a pivoted bottom arranged to turn laterally, in the manner and for the purpose substantially as described.
2. A mail-box provided with a bottom piece turning in grooves cast in the box, substantially as described.
3. A mail-box provided with a bottom turning in grooves cast in the box, two of which act as a bearing on which said bottom turns, and a lever pivoted thereto and operating to turn and dump said bottom, in the manner substantially as described.
4. In a mail-box, a bottom provided with trunnions and elongated bearings in which said trunnions slide, whereby the bottom can be turned laterally and afterward tilted vertically, substantially as described.
5. In a mail-box, the combination of a laterally-turning bottom piece, a spring-actuated lever or handle hinged thereon, and a lock or its equivalent for holding said lever in place, substantially as described.
6. In a mail-box, an indicating device consisting of a balance-rod hung from the top of the box, a mail-receptacle attached to one end of the rod, and a balancing-weight on the end of the same, substantially as described.
7. In an indicating device for mail-boxes, a balance-rod hung from the box, in combination with a mail-receptacle hung from one end of the rod, a balancing-weight secured on the other end of the rod, and an indicator on the extreme end of said rod, substantially as described.
8. In an indicating device for mail-boxes, the combination of a balance-rod hung from the inside of the box, a mail-receptacle hung to one end of the rod, a balancing-weight on the other end of said rod, and mechanism, for limiting the play of the rod, in the manner and for the purpose set forth.
9. In an indicating device for mail-boxes,

the combination of a balance-rod hung from the inside of the box, a mail-receptacle hung to one end of said rod, a weight on the other end of the rod, an indicator secured on the 5 outer end of the rod, and a limiting-loop embracing said rod, substantially as described.

10. In an indicating device for mail-boxes, the combination of a balance-rod hung on the inside of the box, a mail-receptacle hung to 10 one end of said rod, a weight on the other end of the rod, an indicator secured to the outer end of the rod, an aperture in said box adapted to register with said indicator, and mechanism, substantially as described, for limiting the play of said rod, in the manner and 15 for the purpose substantially as described.

11. In a mail-box, an indicating device hung within the box and provided with an inclined

bottom, in combination with a rotating and dumping bottom piece, limited in its play by 20 engagement with said inclined bottom, substantially as described.

12. In a mail-box, the combination of an indicating device consisting of a receptacle having a hinged bottom provided with a rear 25 projection, and a rotating and dumping bottom piece which engages the rear projection of the hinged lid, in the manner and for the purpose substantially as described.

In testimony whereof I affix my signature 30 in presence of two witnesses.

ALBERT S. WRIGHT.

Witnesses:

JOHN BARNETT,
J. K. P. WRIGHT.