(No Model.) 2 Sheets—Sheet 1.

W. COOK.

LETTER BOX.

No. 560,477. Patented May 19, 1896.

Fig. 2

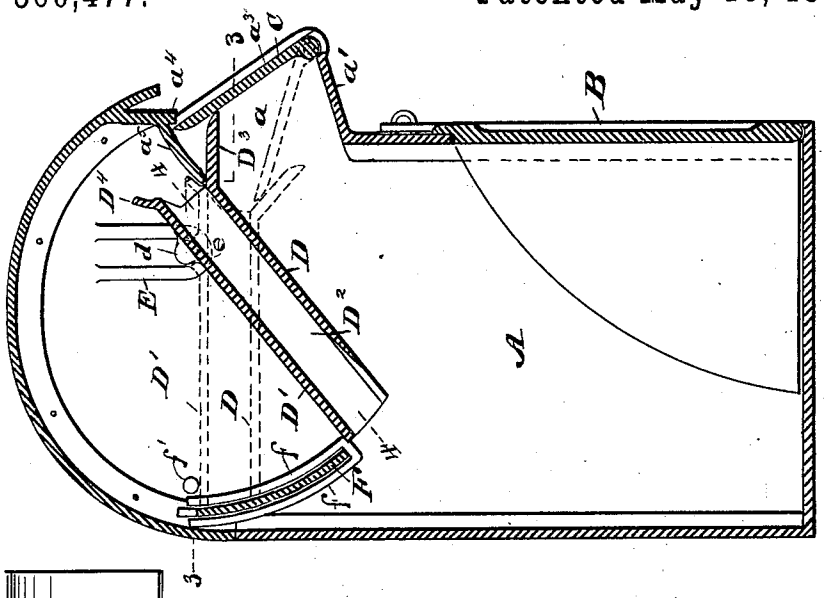
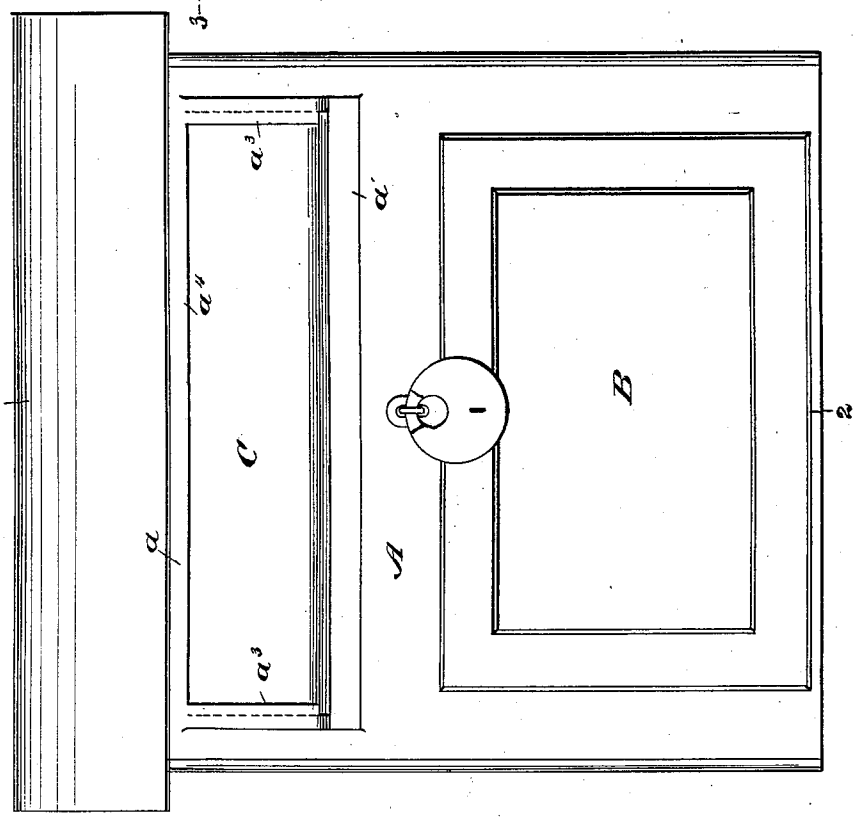


Fig. 1



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(No Model.) 2 Sheets—Sheet 2.

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LETTER BOX.

No. 560,477. Patented May 19, 1896.

Fig. 3

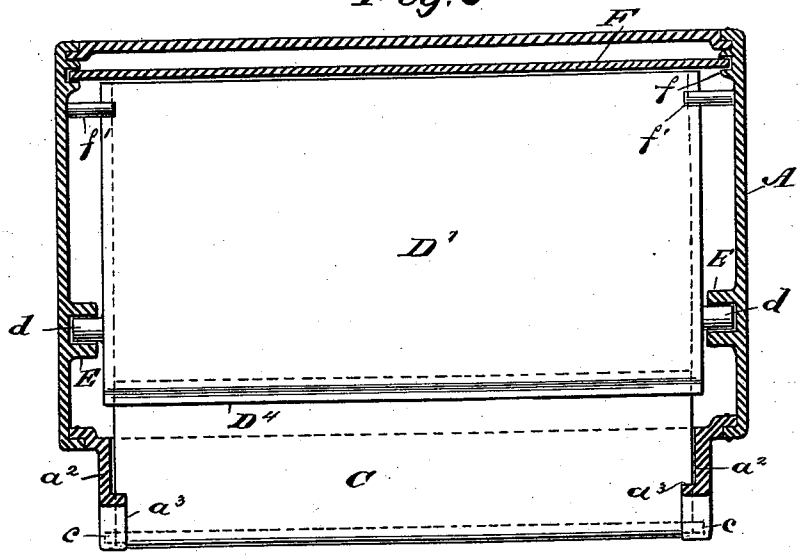


Fig. 4

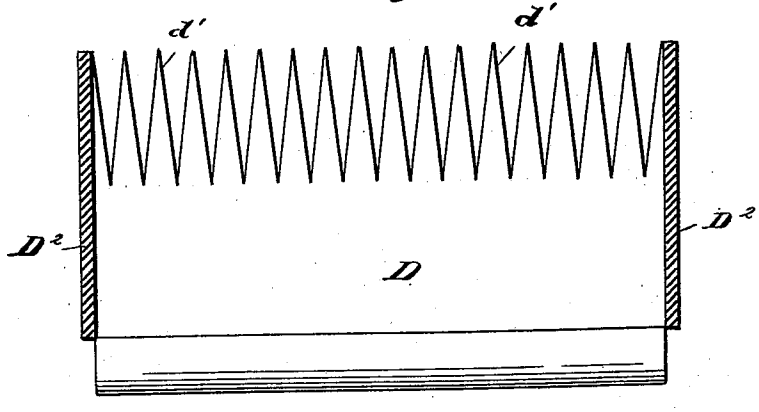
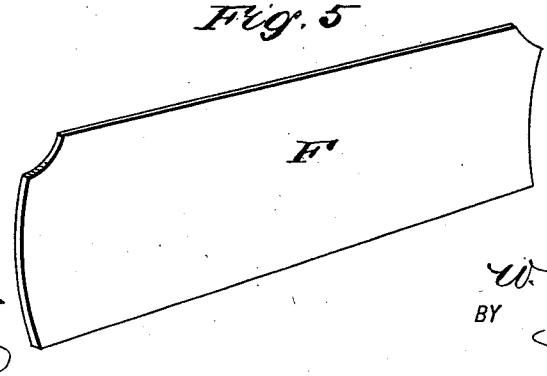


Fig. 5



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UNITED STATES PATENT OFFICE.

WILLIAM COOK, OF NEW YORK, N. Y.

LETTER-BOX.

SPECIFICATION forming part of Letters Patent No. 560,477, dated May 19, 1896.

Application filed February 9, 1893. Serial No. 461,617. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM COOK, of New York city, in the county and State of New York, have invented a new and Improved Letter-Box, of which the following is a full, clear, and exact description.

The objects of the invention are to provide a box for letters and packages of cheap and simple construction which will permit of a letter or package being conveniently mailed with one hand and which will afford ample protection against depredators, and these objects I fully attain in the construction hereinafter described, and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a front view of a letter-box constructed in accordance with my invention. Fig. 2 is a transverse vertical section on line 2 2 of Fig. 1. Fig. 3 is a sectional plan view on line 3 3, Fig. 2, the parts being in the position indicated by dotted lines, Fig. 2. Fig. 4 is a transverse section through the rocking chute, taken on the line 4 4, Fig. 2; and Fig. 5 is a perspective view of the curved guard wall or partition.

The box A is of any desired size, is provided with any suitable door B for the removal of mail-matter, and is formed, preferably at the front, with a receiving-opening a, having a closure C in the form of an inwardly-opening swing-door arranged as follows: The front of the box at the opening a is continued outward or offset, as at a', forming a ledge at the bottom of the opening, and at the sides of the opening flanges a^2 are formed integral with the ledge a', the outer or top edges of the flanges being beveled or inclined and inwardly turned, as at a^3. In the flanges a^2 at the outer edge of the ledge a' the lower end of the closure C is hinged or pivoted, preferably by its trunnions c or a pin. The door C inclines upwardly and inwardly toward and slightly within the box, so that its upper end projects behind the lower edge a^4 of that portion of the front of the box above the opening a, whereby such edge a^4 forms a stop for limiting the outward movement of the door and also serves to prevent entrance of rain. The inturned edges a^3 also overlie the side edges of the door and exclude rain. Within the box A an overhanging flange a^5 is formed on or secured to the box and is curved in a line adjacent to the path of movement of the door C. Within the box there is a vertically-rocking safety-plate D for cutting off the main portion of the box when the door is opened. In the preferred embodiment of my invention this plate forms the bottom of a covered chute, of which D′ is the top, and D^2 the sides, the same being usually cast integral with the plate D, the chute having open ends to permit a letter to slide therethrough. The trunnions d, on which the chute is pivoted intermediate its ends, rest on the bends e of U-shaped ribs E, cast on each side of the case on the inner surface. The receiving end of the plate D has an extension D^3, disposed at a slight angle to the plate and bearing against the inner side of the inwardly-opening door C, while the adjacent edge D^4 of the top D′ of the chute is offset or inclined slightly in the opposite direction to the extension D^3.

Beyond the inner end of the chute is a stationary well or partition F, adjacent to and following the path of movement of the end of the chute when the latter is rocked. The partition, for convenience in casting, may be separate from the box and be received in curved segmental guides f, formed of ribs cast on the inner sides of the box. Near the upper end of the partition F stops f' may be provided, if desired, for limiting the upward movement of the chute.

The inner edge of the plate D is formed with teeth d' as a precaution against the class of depredators that employ a weighted thread or the like and an adhesive substance. It will be seen that a weight of any kind on the thread once it drops below the teeth will cause the thread to hang plumb at the inner terminal of the opening between the teeth, and so that in the withdrawal of the thread the teeth will arrest the weight or a letter attached thereto. It will be seen, however, that the inner end of the chute will practically prevent the removal of a letter, since the latter in all probability will range across the opening in the chute.

The operation is as follows: In entering a letter, if one's hand containing a letter be

pressed against the door C, the latter will swing downward and inward, and as it engages the extension D^3 of the plate D it will raise the inner end of the plate sufficiently to present such inner end to the partition F, thereby cutting off the main portion of the box, and this action of the plate D will occur before the door has passed beyond the overhang a^5. In the continued movement of the door C it will pass beyond the overhang a^5 and throw the plate D to the position shown in dotted lines in Fig. 2, thereby affording a clear entrance for the letter after cutting off the main compartment. Thus the opening of the box and the entering of a letter may be accomplished successively with one hand, it being understood that the parts are so proportioned as to weight as to require but a slight pressure on the door C. When the plate D is brought to the position shown in dotted lines, the top D′ of the chute will have been moved so that its offset D^4 reaches the overhang a^5, the offset preferably, though not necessarily, overlapping the said overhang, as per dotted lines. The top of the chute serves the purpose of maintaining the letter flat on the plate D, and thus prevents all possibility of the letters, when deposited in a bunch, from assuming such an angle to plate D as would enable them to rest against the partition F when the chute falls. It will be understood that the pivot *d* is so located that the rocking plate D will not only return to its normal position when the door C is released, but the said plate will remain in contact with the inwardly-opening door when the latter is closed, as shown in Fig. 2, and thus the pressure exerted by the weight of the plate will hold the door tightly closed.

I claim—

1. The herein-described box having a receiving-opening an inwardly-swinging door operating in the opening, a fixed overhanging flange on the box at the opening and extending inward adjacent to the path of movement of the door, and a vertically-rocking plate within the box movable by the inwardly-opening door, substantially as described.

2. A letter-box having an opening, an inwardly-opening door closing the same, and a rocking receiver within the box and pivoted between its ends whereby it normally gravitates to a position with its receiving end adjacent to the top of the opening and bearing against the door, the inward movement of the door serving to swing said receiving end downward toward the bottom of the opening, substantially as described.

3. The herein-described box having a receiving-opening an inwardly-opening door therefor, the door being inclined inward and a separate vertically-rocking plate within the box having an extension at its receiving end disposed at an angle and bearing by its receiving end against the inner side of the door, the free end of the door projecting in open position within the chute, substantially as described.

4. A letter-box having an opening and provided above the same with an inwardly-projecting overhanging flange, the letter-chute arranged with its upper plate above and its lower plate below the said flange and engaging therewith in the open and closed position of said chute and operating devices, substantially as set forth.

5. A letter-box having an opening and provided above the same with an inwardly-projecting overhanging flange, the letter-chute arranged with its upper plate above and its lower plate below the said flange and engaging therewith in the open and closed position of said chute and the door hinged at its lower edge and movable at its upper edge inward along said overhanging flange, and in engagement with the lower plate of the chute whereby to directly operate and be directly operated by said chute, substantially as set forth.

6. A letter-box having an inlet-opening, a chute pivoted between its ends and arranged at one end to move into and out of register with the inlet-opening to receive the letters, and at its other end to discharge such letters and the inwardly-opening door hinged at its lower edge and adapted to extend over and close the inlet-opening and arranged at its upper free edge to engage the receiving end of the chute and adjust same to tilting position and to in turn be closed by said chute as it adjusts to automatically dump the letters from its opposite end, substantially as shown and described.

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Witnesses:
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F. W. HANAFORD.