

W. B. BENHAM.
LETTER BOX.
APPLICATION FILED NOV. 20, 1911.

Patented July 2, 1912.

1,031,513.

Fig. 1.

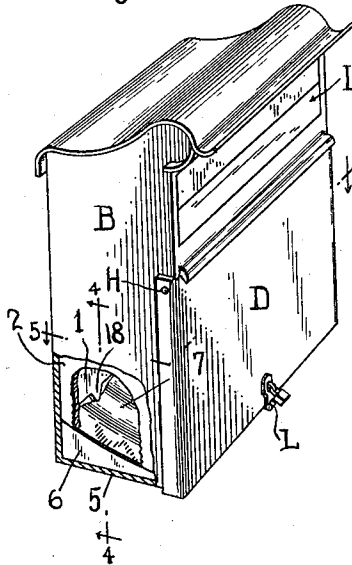


Fig. 5.

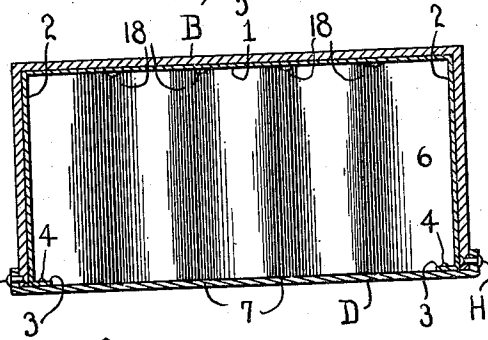


Fig. 3.

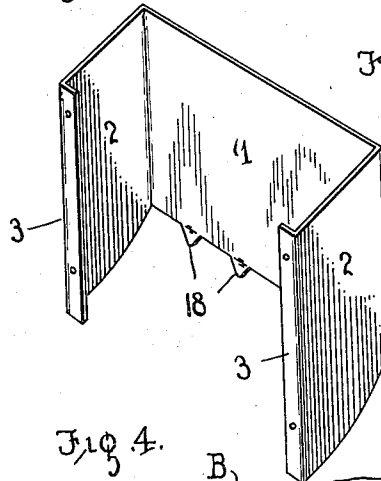


Fig. 2.

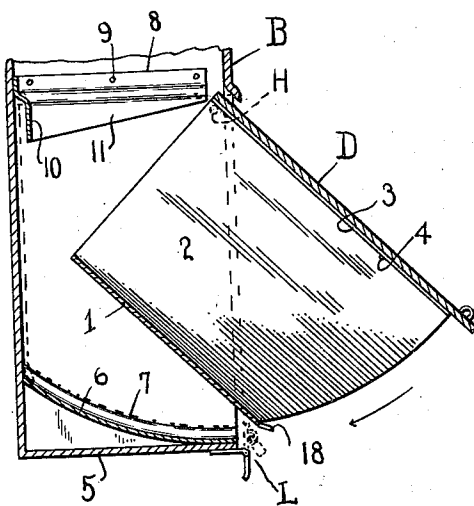
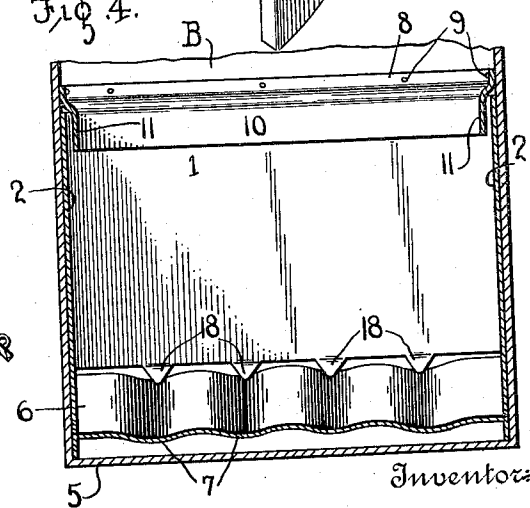


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LETTER-BOX.

1,031,513.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed November 20, 1911. Serial No. 661,285.

To all whom it may concern:

Be it known that I, WILLIAM B. BENHAM, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Letter-Boxes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to deposit and collection receptacles, and more especially to letter boxes; and the object of the same is to improve the discharge end of such a box so that when the postman opens the door to take out the letters they are automatically scooped out of the box and delivered into his pouch.

This and other objects are carried out by the construction hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a general perspective view of the box complete with the nearer side of the lower end broken away and the chute closed; Fig. 2 is a central vertical section of the lower end, showing the chute in full lines as opened and in dotted lines as closed; Fig. 3 is a perspective view of the chute detached; Figs. 4 and 5 are sections on the lines 4—4 and 5—5 respectively of Fig. 1.

In the drawings the letter B designates the body of this improved box, whose construction need not be described in detail as it forms no essential part of the present invention, and the same may be said of the inlet I at the upper portion of the body and through which letters are inserted. Usually the body of a letter box is an upright rectangular receptacle of metal, having at its lower end a door D hinged to the body at H and locked thereto at its free edge at L, but it is common to hinge the door at the lower edge of the same so that when it is opened its upper edge swings away from the opening in the front of the body B and admits both the hand of the postman to withdraw the mail matter and the rain or snow which may chance to fall therein, thereby presenting one objection which it is the purpose of this invention to overcome. Moreover such a door when swung open permits the postman to reach into the box to collect the letters which have accumulated therein, and it becomes necessary for him to pick them up in his fingers which

may be cold or stiff. This is a difficult operation especially if the last few of the letters be thin and lie flat on the bottom of the box, and here occurs another objection which it is the purpose of the present invention to overcome. It frequently occurs that mail matter must be collected from letter boxes during the prevalence of a wind storm, and during the transfer of the mail matter from the interior of the box to the interior of the pouch some pieces may drop out of or be blown out of the hand of the postman to his extreme discomfiture, and here occurs a third objection to the existing conditions which it is the purpose of the present invention to overcome.

In Fig. 3 is seen in perspective detail the chute which forms the principal feature of my invention. Made preferably of a single piece of sheet iron, it comprises a flat upright back 1, two ends 2 bent forward at right angles to said back, and two inturned and alined flanges 3 bent inward toward each other from the free edges of said ends, these flanges being secured to the inner face of the door D by any suitable means such as the rivets 4. With the door this chute therefore forms an upright rectangular open member whose exterior is of a size to fit closely within the body B of the box and whose interior is as much smaller as the thickness of the material necessitates. As the door is swung open the rear lower corner of the chute moves along a curved line struck around the hinge H and is so proportioned that it will clear the front edge of the bottom 5 and the parts of the lock L which project above the same. When the door has been moved to the position shown in full lines, it still protects the upper side of the opening in the body, the ends 2 of the chute lead down through and into the sides of said door opening, and the back 1 of the chute then stands at an incline as shown and will cause the mail matter to slide out into the pouch that the postman holds beneath in a manner which will be clear.

Coacting with the parts above described is a false bottom 6 best seen in Fig. 4, the same being curved throughout its length as seen in Fig. 2 and extending from a point on the back of the body B somewhat above its bottom 5 downward and forward to the front edge of said bottom which is coincident with the lower side of the door-open-

ing. This member is also by preference of sheet metal and may be made irregular as by having grooves or corrugations 7 within its body, and if so the lower edge of the back 1 of the chute by preference has projecting fingers 18 which move within said grooves as the door is swung around its pivot. By this construction what mail matter accumulates within the chute is positively scraped forward over the false bottom when the door is swung open—thereby entirely obviating the necessity that the postman shall put his hands into the letter box at all.

15 An addition to or refinement of the parts above described consists in the provision of means for preventing any piece of mail matter from becoming lodged within the body of the letter box or stuck behind the upper end of the chute. In the embodiment of this feature shown, the same consists of a metallic apron 8 secured within the two sides and across the back of the body B as by rivets 9, the rear stretch 10 of this apron depending from the rivets and projecting slightly forward so that the upper edge of the back 1 of the chute may pass behind it, and the side stretches 11 thereof leading forward from the end of said rear stretch and by preference being cut off obliquely on their lower edges as seen in Fig. 2. With this refinement added to the box, letters dropped into the inlet I thereof fall through the apron, drop down throughout the length of the chute, and come to rest upon the false bottom 6 which being curved downward and forward causes them to accumulate at its lower end against the inside of the door D; and when the latter is opened there is an outrush of accumulated mail matter even before the door is opened to its fullest extent.

Thus it will be seen that I have produced a letter box whose discharge end is so constructed that, while it is extremely simple and cheap to make and not liable to get out of order, it causes the automatic accumulation of the mail matter therein at a point ready for immediate discharge when the door is opened, if the apron be used no letter can possibly stick behind the chute, if the fingers and grooves be used every piece of mail matter within the box will be positively forced out of the same when the door is swung open, it protects the mail matter from the elements whether the same be in the form of rain, snow, hail or lateral winds, and it provides a discharge chute at

the outlet end of the letter box beneath which the postman may hold his pouch so that the mail matter falls into the same automatically and the operator may be sure that he has collected every piece of mail matter within the box and therefore can save the time usually employed in reaching his hand into the same. The parts of this device are of any desired size, proportion and material, and changes in details may be made without departing from the principle of my invention.

What is claimed as new is:

1. In a letter box discharge, the combination with an upright rectangular body having a door opening in the lower portion of its front, a door hinged at its upper edge along the top of said opening, and a rectangular tubular chute secured to the inner face of the door flush with its upper edge and adapted when the door is closed to fit inside the body; of an apron secured across the back and along the sides of said body with its rear stretch deflected forward so as to permit the upper edge of the chute to pass behind it when the door is closed, and a false bottom within said body curving from its rear wall forward and downward to the lower edge of said opening and over and off which the rear wall of said chute moves as the door is opened.

2. In a letter box, the combination with the body having an opening through one of its upright walls, and a door hinged along the top of the opening so as to close it when swung inward; of a tubular chute secured to the inner face of the door and standing substantially in contact with the other walls of the body when said door is closed, an apron fixed within the body and beneath which the upper end of the chute engages at this time, a false bottom within said body struck on a curve around the hinge line of the door with its lower edge coincident with the lower side of said opening and its body having grooves throughout its length, and fingers on the lower edge of said chute projecting into such grooves and moving lengthwise within them as the door is turned upon its hinge.

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

WILLIAM B. BENHAM.

Witnesses:

N. L. COLLAMER,

MINNIE H. STUARD.