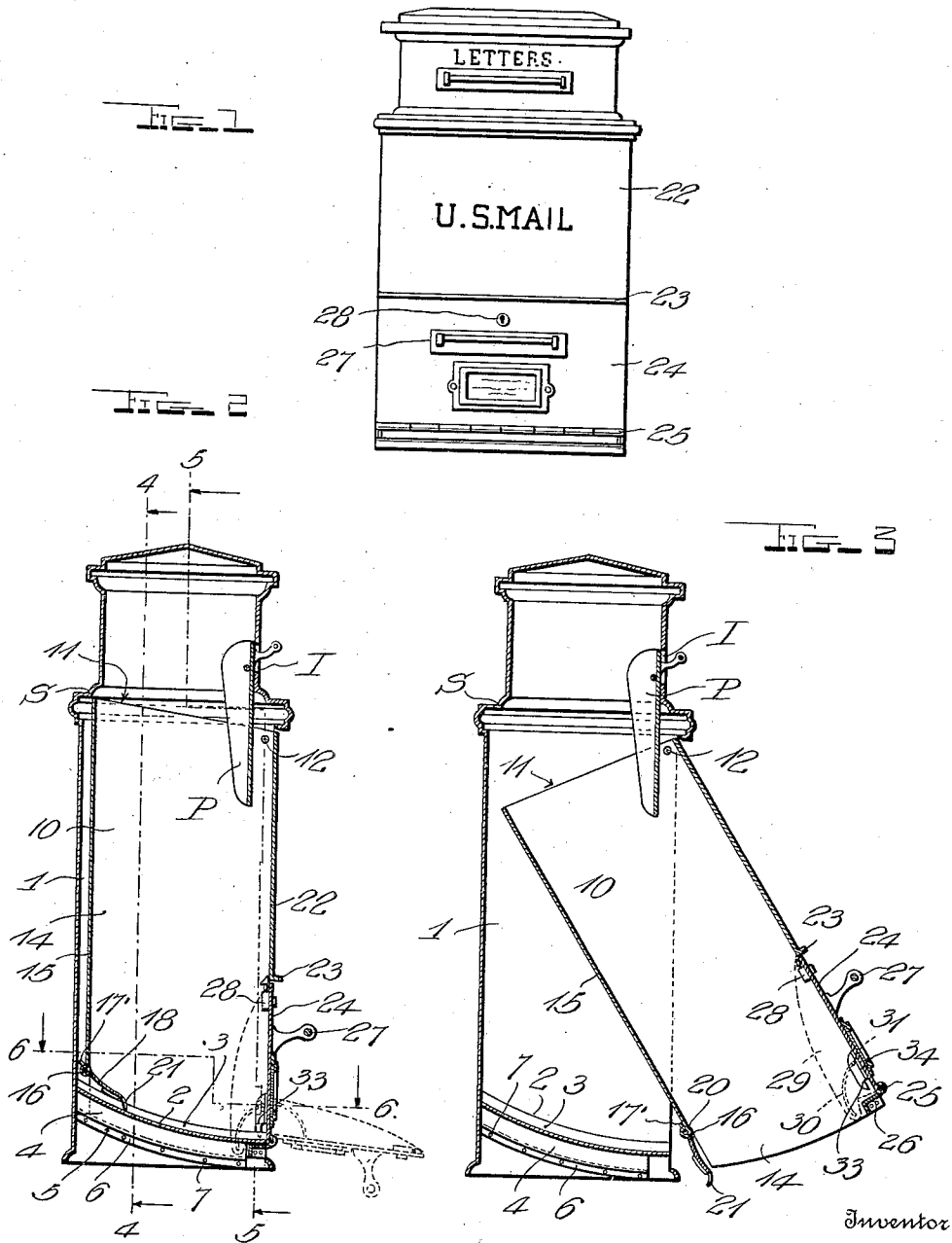


W. B. BENHAM.
LETTER BOX.
APPLICATION FILED MAR. 1, 1913.

1,079,999.

Patented Dec. 2, 1913.
2 SHEETS—SHEET 1.



Witnesses

E. C. C. C. C.

L. B. James

William B. Benham

by *H. B. Wilson & Co.*

Attorneys

W. B. BENHAM.

LETTER BOX.

APPLICATION FILED MAR. 1, 1913.

1,079,999.

Patented Dec. 2, 1913.

2 SHEETS-SHEET 2.

FIG. 4

FIG. 5

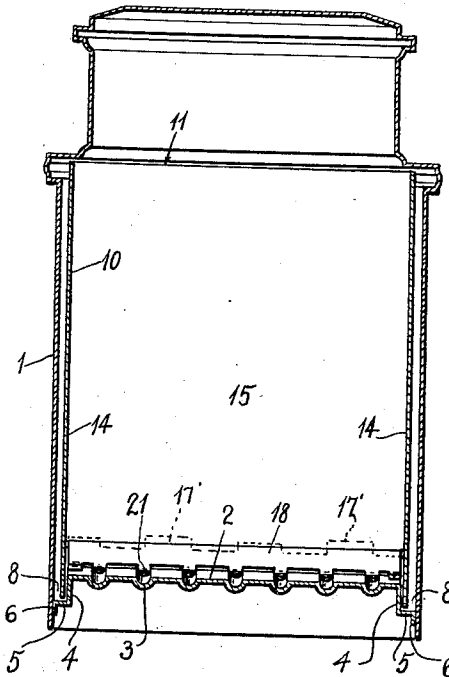
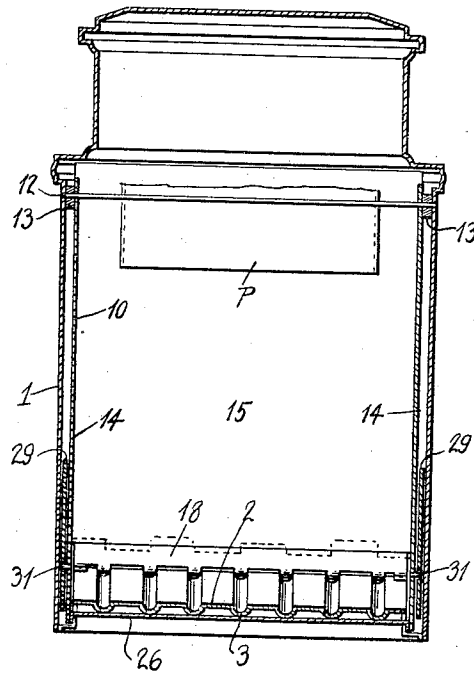


FIG. 6

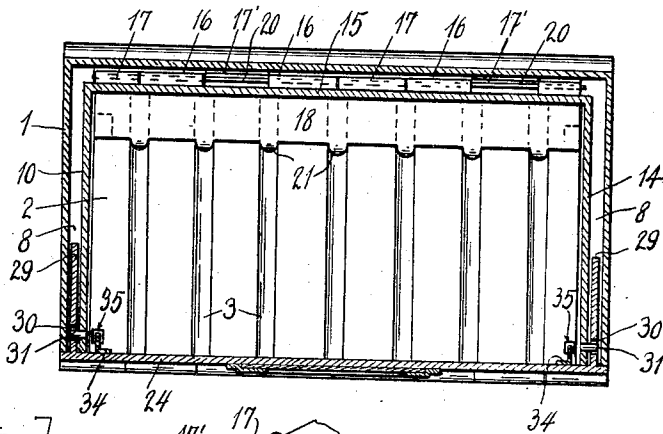
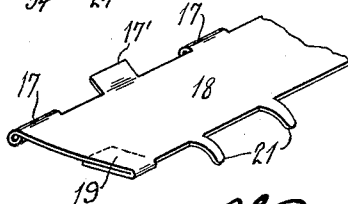


FIG. 7



Witnesses

L. B. James

Inventor

William B. Benham

by

A. B. Wilson & Co

Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM B. BENHAM, OF WASHINGTON, DISTRICT OF COLUMBIA.

LETTER-BOX.

1,079,999.

Specification of Letters Patent.

Patented Dec. 2, 1913.

Application filed March 1, 1913. Serial No. 751,622.

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 letter boxes and more especially to the mechanism therein for delivering the mail to the collector; and the object of the same is to improve the construction of letter boxes in this respect. This object is carried out by constructing the entire device in the manner hereinafter more fully described and claimed, and as shown in the drawings wherein—

Figure 1 is a front elevation of this letter box complete. Figs. 2 and 3 are central vertical sections thereof with the parts in different positions as will be referred to hereinafter, and Figs. 4, 5 and 6 are sectional views on the lines 4—4, 5—5 and 6—6 of Fig. 2 respectively. Fig. 7 is a perspective detail of the rake.

I will say in starting that this letter box is by preference made of metal such as sheet iron, possibly with cast iron trimmings, although the metal employed is not essential, and the finish can be that which will cause the letter box to correspond with others in the city where it is used or with the requirements of the Post-Office Department. In size it may be adapted to its use—small boxes being employed except in busy sections or popular places, where larger boxes will doubtless be used.

My improvements do not relate to the inlet I of the box, although by preference I have a pivoted member P disposed in such manner as to normally close the inlet so as to exclude the elements, and which member will be tilted on its pivot when the user desires to deposit a piece of mail. Nor does this specification describe the support for the casing of the letter box, as the same may be mounted on a standard or attached to an upright such as a wall.

The present invention is directed more particularly to the details of construction going to make up the mechanism within the letter box by means of which its contents are

delivered to the collector in bulk, or by means of which, if the accumulated mail matter is not large, the collector may pick it out of the interior with his hand.

Coming now to the details of construction relative to the present invention, the numeral 1 designates an upright rectangular casing whose side and rear walls are closed, whose front is open, and whose bottom 2 is struck on a curve around a pivotal point 12 yet to be referred to, is grooved as seen at 3, has its side edges 4 downturned as seen in Fig. 4, thence carried outward as at 5, and then carried downward into flanges 6 which are secured as by rivets 7 to the sides of the casing 1—thereby forming a pocket 8 along each edge 4 of said bottom.

Disposed within the casing as thus described is a rectangular sheet metal dump box 10 whose upper end 11 is by preference cut off on a slightly oblique line as shown so that its rear extremity will underlie a shoulder S at the back of the inlet portion of the letter box, with the obvious purpose of rendering it impossible to drop a letter behind the dump 10; and this box is supported at its upper forward corner on a pivot 12, preferably formed by passing a rod across the box as seen in Fig. 5 and interposing washers or bosses 13 between the sides of the dump and the sides of the casing as therein shown. The sides 14 of said dump pass down into said pockets 8 as seen in Fig. 4; and the lower edge of the rear wall 15 is cut off shorter than the sides and bent to the rear into knuckles 16 interengaging with other knuckles 17 at the upper edge of a rake 18 (see Fig. 7) which is also by preference made of sheet metal. The width of this rake is sufficient to cover the space disclosed by the cut-away lower portion of the rear wall 15, as will be seen from Fig. 3, and at the ends of its front edge are fingers 19 which are turned under to the rear so as to form feet which will slip over the bottom 2 without scratching or sticking. Finally a pin or rod 20 is put through the interengaging knuckles 16 and 17 to complete the hinge, and one or two of the knuckles are bent up to form stops 17' which contact with the rear wall of the dump when the rake hangs pendent from said hinge as seen in Fig. 3. Along its front edge said rake is provided with a plurality of teeth 21

whose tips are bent downward and rounded so that they will engage the grooves 3 in the bottom 2. From this construction it follows that mail matter dropped in at the inlet will
 5 pass down through the tubular dump 10 and rest on the bottom 2, and perhaps some of it will rest on the body 18 of the rake; but when the dump is swung forward to the position shown in Fig. 3, the rake teeth 21
 10 moving within the grooves 3 of the bottom carry everything forward until they slip off the front edge of the bottom when the rake assumes an inclined position parallel with the plane of the rear wall of the dump and
 15 serves to assist in throwing the outflowing mail matter forward.

The front wall 22 of the dump 10 is closed down to a point 23 where it is by preference flanged outward and forms a keeper for use
 20 as yet to be explained. Below this point the front wall is open, and the opening is closed by a door 24 which is hinged at its lower edge as at 25 to a strip 26 constituting the extreme lower portion of said front wall
 25 and preferably carried in under as seen in Figs. 2 and 3, and bent downward so as to close against the front edge of the grooved bottom 2 and simultaneously space apart and strengthen the side walls of said dump
 30 10. The door may carry suitable instructions or hours of collection, and by preference has a handle 27 and a lock 28 whose bolt engages said keeper 23 when the door is closed. At the sides of said door are up-
 35 right flanges 29 so spaced as to pass outside the side walls 14 of said dump as seen in Fig. 6, and these flanges with the door body constitute what might be called a chute which is hinged at 25 across the lower edge
 40 of the opening in the wall 22 on a line flush with the front edge of the grooved bottom 2, as seen in Fig. 2. Each flange is provided with a curved slot 30 struck around the hinge 25 as a center, and each slot is en-
 45 gaged by a pin 31 projecting outward from the side wall 14 of the dump 10. The slots are so disposed and of such length that one end of each strikes its pin when the door is closed as seen in full lines in Figs. 2 and 3
 50 and the other end of each slot falls against the pin when the door is completely opened as seen in dotted lines in Fig. 2—thereby holding it at this time on a line about in alinement with the curved bottom 2 as illus-
 55 trated, and permitting the collector to scrape the mail matter by hand across the grooved bottom and out over or through said chute.

The lock for the dump 10 is by preference carried by the door 24, and is of such con-
 60 struction that when the parts are both closed and the door is locked as at 28, the parts must remain closed. The locking devices include a pair of sheet metal hooks whose bills 33 are preferably struck on curves

around the hinge line 25, and whose bodies 65 are bent into lateral flanges 34 and riveted to the inner face of the door 24; and a pair of slots 35 formed in the bottom 2 at a proper point to receive the tips of said bills when the parts are all closed as seen in full
 70 lines in Fig. 2. So long as the door remains closed (and locked as at 28) these hooks cannot disengage the slots in the bottom and therefore the door and hence the entire
 75 dump cannot swing outward.

With this construction of parts, the use of my improved letter box is as follows: Mail is deposited through the inlet I in a manner not necessary to elaborate, and each piece of mail falls through the open upper end 11
 80 of the dump 10, and either onto the grooved bottom 2 or onto the rake 18, although the peculiar construction of the hinge of said rake is such that not even the thinnest piece of mail can catch behind it. When a mail
 85 collector comes along he unlocks the door 24 at 28 and glances within; if he finds but a few pieces of mail he swings the door down to the position shown in dotted lines in Fig. 2, rakes said pieces across the bottom
 90 and out through the chute by hand, closes and locks the door, and passes on. If, however, he finds that the dump contains a considerable volume of mail he swings the door far enough forward to disengage the locking
 95 devices (perhaps two inches) and then utilizes said door as a handle by means of which he swings the entire dump 10 on its pivot 12. This he can do quite easily, first because he yet has hold of the key and has
 100 started the door open a little to look in, second because he need move the free edge of the door only a fraction of an inch farther to disengage the bills 33 of the locking hooks from the slots 35, third because the
 105 tendency of the box 10 will then be to swing forward as it is hinged at its front upper corner, and finally because the curvature of the bottom 2 directs the weight of the mail matter toward the collector. Attention
 110 is directed to the fact that his key is usually on a chain fastened to his belt, while he will carry his pouch or bag in his left hand or on a strap over his shoulder; therefore if we assume that his right hand is busy holding
 115 the key and swinging the device as just described, his left hand is free to hold the mouth of the receptacle beneath the lower end of the dump box 10, just at a time when the mail matter therein is to be dropped
 120 out of the same. It follows that a mail box of this character can be operated very quickly, and it is obvious that the mail being placed in the pouch or bag is protected from the elements up to the last moment,
 125 so that not even the lightest post card need be blown away. The rake carries everything forward over the bottom, and when

it falls to a position in substantial alinement with the back of the box 10, it assists in delivering the mail matter into the pouch or bag; hence the collector need not even look to see if he has collected everything. Having done so, he still uses the door itself as a handle with which to restore the parts to their normal position, and finally he pushes the door closed—thereby reengaging the locking devices, and turns the key in the lock 28, withdraws it, and passes on his way.

What is claimed as new is:

1. In a letter box, the combination with a casing having an opening through its front wall, a dump box within said casing and hinged at the top of said opening, the front wall of said dump box having an opening, and a member for closing the latter; of an element carried by said member and within the dump box for locking said member to the casing and thereby retaining the box in the casing.

2. In a letter box, the combination with a casing having an opening through one of its upright walls, a dump box within said casing and hinged along the top of said opening, and a bottom within said casing across the lower end of said dump box and leading to the lower portion of said opening, the front wall of said dump box having an opening; of a door hinged at its lower edge so as to close said opening in the front wall of the dump box, a lock for holding said door closed, and a hook projecting rigidly from said door into the dump box and over said bottom, the latter being provided with a hole engaged by the hook when the dump box stands within the casing and the door stands closed.

3. In a letter box, the combination with an upright rectangular casing having an opening through its front wall, a rod across the casing at the top of said opening, and a fixed bottom for the casing struck on a curve around said rod and extending from the rear of the casing to the bottom of said opening in its front, each edge of said bottom being carried downward and thence outward and again downward and riveted to the side of the casing so as to produce a pocket; of a dump box disposed within said casing and hingedly mounted upon said rod, the lower edges of its side walls extending into said pockets and the lower edge of its rear wall being cut off above said bottom, a hinged rake connected with said rear wall and slidably mounted over said bottom, and devices for locking the dump box in closed position.

4. In a letter box, the combination with an upright rectangular casing having an opening through its front wall, a rod across the casing at the top of said opening, and a fixed bottom for the casing struck on a

curve around said rod and extending from the rear of the casing to the bottom of said opening in its front, each edge of said bottom being carried downward and thence outward and again downward and riveted to the side of the casing so as to produce a pocket; of a dump box disposed within said casing and hingedly mounted upon said rod, the lower edges of its side walls extending into said pockets and the lower edge of its rear wall being cut off above said bottom, a rake connected with said rear wall and movable across said bottom, the latter having holes through it near its front edge, hooks whose tips are adapted to engage said holes when the dump box stands within the casing, a support for said hooks movably connected with the front wall of said dump box, and a handle on the support.

5. In a letter box, the combination with an upright rectangular casing having an opening through one of its walls, a tubular dump box pivoted at its upper end within said casing and adapted to swing out through said opening, and a bottom fast within said casing and curving around the pivot line of the dump box from one wall of the casing to the lower edge of said opening, said bottom having grooves throughout its length; of a sheet metal rake hinged along its upper edge to the lower edge of said dump box and having teeth along its opposite edge coincident with said grooves, fingers projecting from the last-named edge and turned under so as to slide on said bottom, and projections rising from the hinge line of this member and adapted to contact with said wall of the dump box when such member stands in substantial alinement therewith, for the purpose set forth.

6. In a letter box, the combination with an upright casing having an opening in its front, a tubular dump box standing normally within said casing and closing such opening, a hinge connecting the dump box and casing across the top of said opening, the front wall of the dump box itself having an opening near its lower end, and a bottom within said casing leading to the lower edge of its opening; of a door hinged to said front wall at the lower side of the opening therein, means for locking the free edge of the door when closed, and devices actuated by the closing of the door for locking the dump box when housed within the casing.

7. In a letter box, the combination with an upright casing having an opening in its front, and a bottom fixed across the interior thereof and inclining to the bottom of said opening; of a tubular dump box hinged within said casing and adapted to swing out of said opening, the front wall of the dump box itself having an opening near its lower end, a door hinged to the front wall at the

lower side of the opening therein and having upstanding flanges along its sides adapted to pass into the dump box as the door is closed, said flanges having curved slots
5 therein struck on arcs around such hinge line, and pins in the side walls of the dump box with which said slots engage.

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

WILLIAM B. BENHAM.

Witnesses:

M. A. FAULCONER,
A. R. DENEEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
