

A. K. SMITH.
MAIL CHUTE.

APPLICATION FILED JULY 29, 1909.

973,081.

Patented Oct. 18, 1910.

FIG. 1.

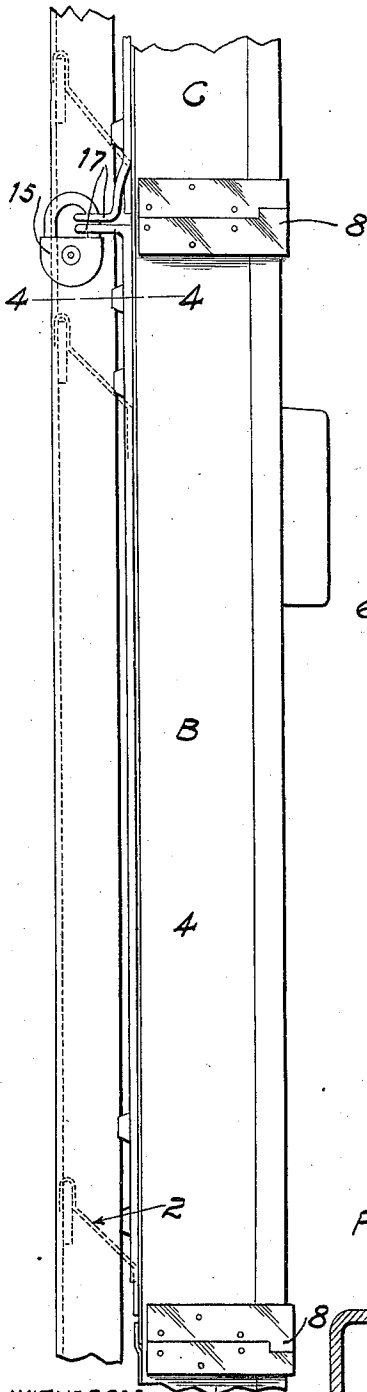


FIG. 3.

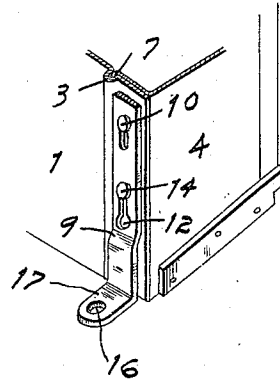


FIG. 2.

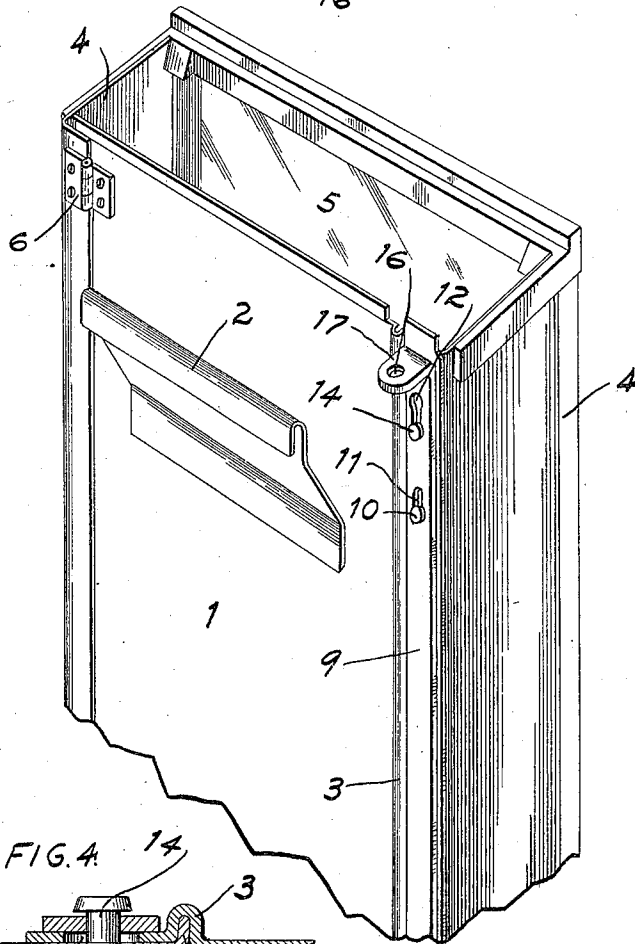
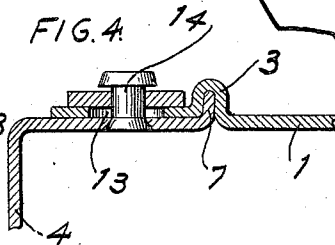


FIG. 4.



WITNESSES
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UNITED STATES PATENT OFFICE.

ARTHUR K. SMITH, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ROBERT B. GALT AND
ALFRED O. WOERNER, TRUSTEES, BOTH OF ST. LOUIS, MISSOURI.

MAIL-CHUTE.

973,081.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Original application filed January 2, 1909, Serial No. 470,391. Divided and this application filed July 29, 1909. Serial No. 510,199.

To all whom it may concern:

Be it known that I, ARTHUR K. SMITH, a citizen of the United States, residing at St. Louis, Missouri, have invented a certain new and useful Improvement in Mail-Chutes, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a mail chute of my improved construction. Fig. 2 is a perspective view of the upper end of one of the sections of the mail chute. Fig. 3 is a detail perspective view of the lower end of one of the sections of the chute. Fig. 4 is an enlarged horizontal section taken on the line 4—4 of Fig. 1.

This invention relates to new and useful improvements in mail chutes, and is a division of an application filed by me January 2d, 1909, Serial No. 470,391.

The principal object of my present invention is to provide simple means, preferably located on the rear side of the chute for locking two adjacent chute sections in position by means of a single locking device such as a padlock.

With this object in view, my present invention consists in certain novel features of construction and arrangement of parts hereinafter more fully described and claimed.

Referring by numerals to the accompanying drawings, 1 designates the back wall of the chute sections, and fixed thereto are hooks 2, by means of which the sections are suspended or hung upon a suitable supporting frame. Near one edge of the back wall 1 is formed a vertically disposed bend 3, which forms a groove adapted to receive a flange on the free edge of the hinged portion of the chute. This hinged portion of the chute comprises side walls 4 and a front wall or panel 5 of glass. The rear end of one of the side walls 4 is bent inwardly and occupies a position on the rear side of the back wall 1, and is connected thereto by means of hinges 6. The rear portion of the opposite side wall 4 is bent inward and lies against the inside of the corresponding edge of the back wall 1, and formed on or fixed to this inwardly bent portion is a rib or flange 7, which occupies the groove 3 when the

hinged portion of the chute is closed against the back wall.

It is the usual practice to construct the chute sections which extend from floor to ceiling in two or more separate parts, one of said parts being provided with a mail-receiving aperture, and the other or upper part extending from the mail-receiving aperture up to the thimble or joint section which extends through the ceiling. In the present construction the chute from floor to ceiling is constructed in three sections—A, the lower section, B, the middle section containing the mail-receiving aperture, and C the upper section. The section B is provided on its front side, at the upper and lower ends, with extensions or flanges 8 which engage in corresponding recesses formed in the ends of the adjacent sections, thus serving to lock the upper and lower sections against movement when the central section is in proper position. It is unnecessary by this "key" arrangement to provide special locking means for the lower section or for the upper section, but I prefer to provide locking means for the middle and upper sections. This locking means consists of a bar 9 arranged to slide on the rear side of the back wall 1 between the free edge thereof and the groove 3. This bar is supported upon studs 10, which are seated in the inwardly bent portion of the corresponding side wall 4, and which studs project through slots 11 formed in the bar 9, the outer ends of said studs being provided with suitable heads. This bar is provided with keyhole-shaped openings 12, the enlarged portions of which are adapted to register with corresponding apertures 13 formed through the back wall 1 adjacent the free edge thereof.

14 designate headed pins or studs secured on the back flange of the corresponding side wall 4, which headed pins or studs project through the openings 12 and 13.

When the bars 9 on the chute sections B and C are shifted into the positions seen in Figs. 2 and 3, the headed pins or studs 14 occupy the smaller portions of the keyhole openings, and consequently, the swinging portions of the chute sections are locked to the back plates. When the bars 9 are moved so that the enlarged portions of the keyhole openings register with the openings 13, the hinged portions of the chute may be swung

outwardly or into closed position, as the case may be, and during this swinging movement the heads to the pins or studs 14 pass freely through the coinciding openings 12 and 13. When the chute sections A, B and C are properly assembled and it is desired to lock the same, the bars 9 are moved toward one another, which action shifts the openings 12 so that the headed pins 14 are prevented from disengaging from said openings, and the shackle of a padlock 15 is now engaged through apertures 16 formed in the outwardly bent ends 17 of the bars 9. To open the top and gain access to the interior thereof, the padlock is unlocked and removed by a post office employee, or other proper person, after which the bar on the section B is depressed, which action permits said section to be swung outward, and consequently detached from the adjacent chute section. To lock the various sections in position, the upper section is first closed and its locking bar depressed. The bottom section is then closed, after which the middle section is closed and its locking bar raised, so that the outwardly bent portions 17 of both locking bars lie adjacent each other, as shown in Fig. 1, and the padlock 15 is now locked upon said outwardly bent ends.

I am aware that minor changes in the construction, arrangement and combination of the several parts of my device can be made and substituted for those herein shown and described, without in the least departing from the nature and principle of my invention.

I claim:

1. In a mail chute, a plurality of chute sections each comprising a back plate, and a front portion hinged thereto, one of which chute sections serves as a key to lock the adjacent sections in their closed position, and sliding means on the back plate of the key section and one of the adjacent sections for locking said sections against movement.

2. In a mail chute, a plurality of hinged sections, one of which serves as a key to lock the others in position, and a sliding bar mounted on the rear side of the fixed portion of each section for engaging a part of the hinged portion to hold and lock the same against movement.

3. In a mail chute, a fixed back plate, a hinged portion, the free edge of which engages against said back plate, studs carried by the hinged portion and projecting through openings formed in the back plate when the hinged portion is closed, and slid-

ing means on the rear side of the back plate for engaging the studs to lock the hinged portion to the back plate.

4. In a mail chute, a fixed back plate, a hinged portion, the free edge of which engages against said back plate, studs carried by the hinged portion and projecting through openings formed in the back plate when the hinged portion is closed, and a sliding bar arranged for movement on the rear side of the back plate for engaging the studs when the hinged portion is closed against the back plate and locking said parts to one another.

5. In a mail chute, a chute section comprising a back plate having openings, a hinged portion having headed studs, and a movable locking member provided with key-hole openings, said member being arranged to slide on the back plate so as to cooperate with the headed studs projecting through the openings in the back plate.

6. In a mail chute, a plurality of hinged sections, one of which serves as a key to lock the others in their closed position, sliding locking bars on an adjacent pair of the hinged sections for locking them in their closed position, and the adjacent ends of which locking bars are bent outward and provided with openings adapted to receive a lock.

7. In a mail chute, a chute section composed of a pair of members, one of which is hinged to the other, headed studs carried by the movable portion, which headed studs project through apertures formed in the opposite member, and a sliding member on said opposite member for engaging the headed studs to lock the two members in closed position.

8. In a mail chute, a chute section comprising a fixed back plate in one edge of which is formed a series of openings, a front portion hinged to said back plate, headed studs on the hinged portion which project through the openings in the back plate, and a locking bar arranged to slide on the rear side of the back plate, and provided with openings, which receive the headed studs carried by the hinged portion, whereby the two parts of the section are locked in closed position.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 26th day of July, 1909.

ARTHUR K. SMITH.

Witnesses:

ALMA GEBHART,
LENORE CLARK.