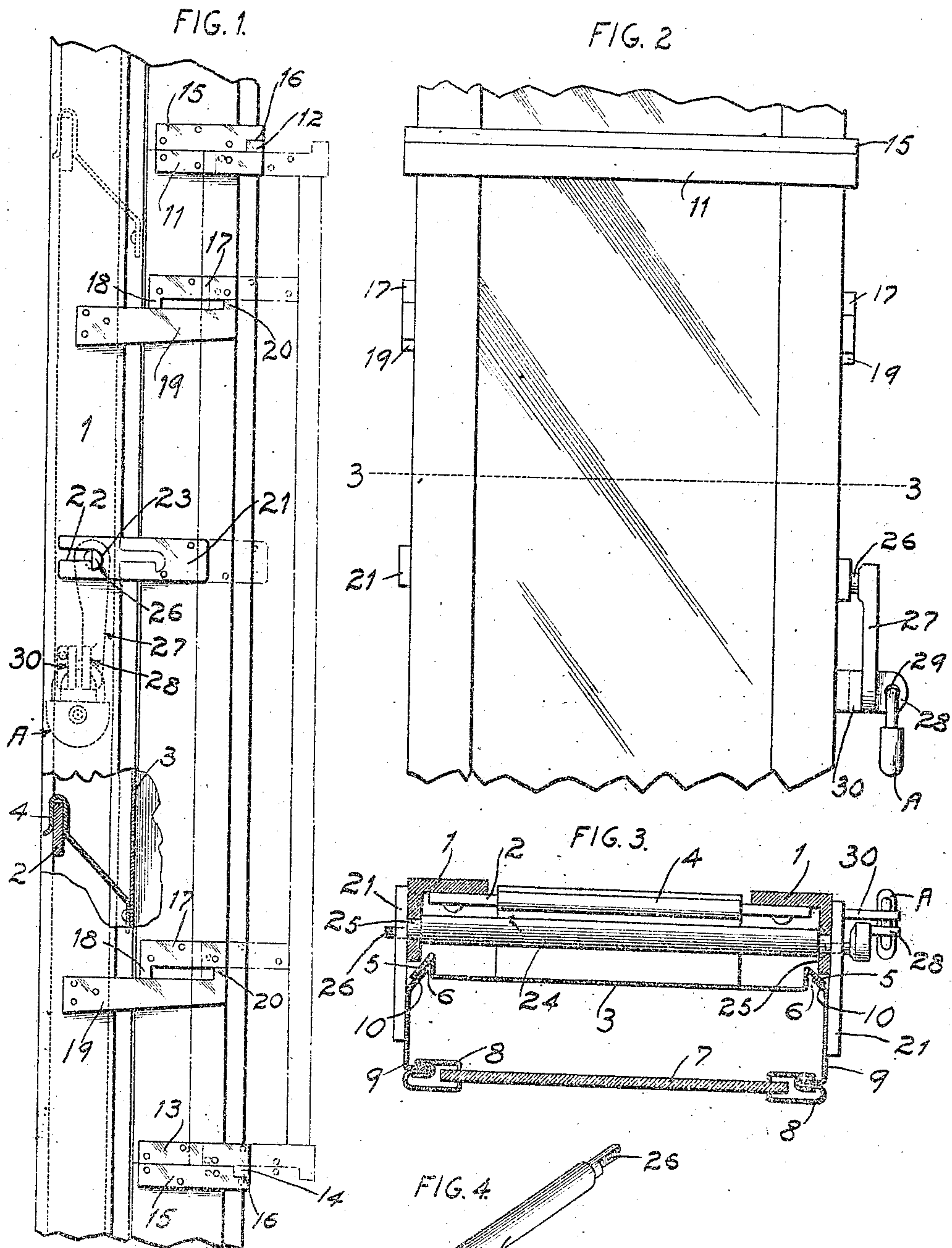


966,452.

Patented Aug. 9, 1910.



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# UNITED STATES PATENT OFFICE.

EMIL A. KUMMING, OF ST. LOUIS, MISSOURI, ASSIGNOR TO U. S. MAIL CHUTE EQUIPMENT COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

MAIL-CHUTE.

966,452.

Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, EMIL A. KUMMING, 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 portion of a mail chute of my improved construction; Fig. 2 is a front elevation of a portion of the chute; Fig. 3 is a horizontal section taken on a line 3—3 of Fig. 2; Fig. 4 is a perspective view of a locking rod utilized for locking the body of the chute to its support.

My invention relates to new and useful improvements in mail chutes, my object being to construct a simple inexpensive chute in sectional form in order that a part of one section may be easily and quickly removed to gain access to the interior of the chute for the purpose of repair or for releasing mail matter that may be caught in the chute thereby tending to clog or choke the passage-way therethrough.

A further object of my invention is to provide simple means for locking the removable parts of a chute to the chute support.

Referring by numerals to the accompanying drawings, 1 indicates uprights in the form of angle-bars which uprights form the supporting frame for the chute. These uprights are united by suitable cross-pieces or spacing strips 2 arranged at suitable distances apart and rigidly fixed to the uprights in any suitable manner. The back wall or rear plate 3 of the chute is preferably formed of sheet metal either in one continuous piece or in sections, and fixed in any suitable manner to the rear side of said rear wall are hooks 4 which engage over the cross-pieces 2, thus rigidly maintaining said rear wall in proper position. The side edges of the rear wall 3 are bent rearwardly and then outwardly and at angles, as designated by 5, to form grooves 6 at the side edges of said plate 3, said grooves being V-shaped in cross-section.

The main body of the chute is made up of sections of suitable length, each section

comprising a front wall or plate 7 of glass or analogous material, the side edges of which are clamped between suitable molding strips 8, which latter are connected in any suitable manner to the front edges of side walls 9 of sheet metal or analogous material, the rear edges 10 of which are bent inwardly, and when the chute is assembled these inwardly bent edges fit snugly within the V-shaped grooves 6 at the sides of the rear wall 3.

Fixed in any suitable manner to the outer faces of the side walls 9 at the top of each removable chute section are horizontally disposed plates 11, on the forward ends of which are formed upwardly projecting lugs 12, and corresponding plates 13 are arranged on the lower ends of the side walls of each removable chute section, the outer ends of said plates 13 being provided with downwardly projecting lugs 14. Corresponding plates 15 are fixed on the side walls of the adjacent sections of the chute at both top and bottom, said plates 15 being provided in their outer ends with notches 16 which are occupied by the lugs 12 and 14 when the removable chute section is in proper position.

Fixed to each side wall 9 between the plates 11 and 13 is one or more horizontally disposed plates 17, and formed integral with the rear end of each of these plates is a depending lug 18. Plates 19 are fixed in any suitable manner to the uprights 1, and project forwardly therefrom, immediately below the plates 17, and formed integral with the forward ends of these plates are upwardly projecting lugs 20.

The construction just described provides means for supporting the removable parts of the chute sections when the same are detached for the purpose of repair or for the removal of clogged mail matter, and the lugs 18 and 20 perform the functions of stops to prevent the removable parts from being wholly removed from the chute structure, unless desired.

Fixed in any suitable manner to the side walls 9 are rearwardly projecting plates 21, in the rear portions of which are formed horizontally disposed slots 22 terminating in vertically disposed semi-circular openings 23.

24 designates a locking-bar or rod provided with reduced ends 25 which are journaled in suitable bearings formed in the up-



rights 1. Extending outward from these reduced ends 25 are lugs 26 which are semi-circular in cross-section and of such size as that they will fit in the semi-circular openings 23. One of these lugs 26 is made longer  
 5 than the other, and fixed thereon is a crank arm 27, the lower end of which is provided with an ear 28 in which is formed an aperture 29, and a corresponding aperture is  
 10 formed in a lug or bracket 30 which is fixed to the face of the corresponding one of the uprights 1. When the removable part of the chute section is in proper position and the crank arm 27 occupies a vertical position, as  
 15 shown in Figs. 1 and 2, the shackle of a padlock A, or other suitable locking device, passes through the coinciding apertures in the ear 28 and the lug 30. When the chute is assembled the removable part occupies the  
 20 position shown in Fig. 1, with the lugs 26 occupying the semi-circular openings 23.

When it is desired to gain access to the interior of the chute for the purpose of repair or for removing clogged mail matter, the  
 25 padlock A is unlocked by a person having a key, after which the crank arm 27 is swung upward and forward into a horizontal position, thus bringing the semi-circular lugs 26 into alinement with the slots 22. The movable  
 30 parts of the chute section comprising the transparent front walls 7 and side walls 9 are now drawn outward from the fixed back wall 3, during which movement the parts are supported by the arms or plates 19 and the outward movement of said chute section is stopped by the engagement of the  
 35 lugs 18 against the lugs 20. When the parts are so positioned the clogged mail matter can readily be removed from either the movable or fixed portions of the chute, and said  
 40 chute may be repaired if necessary. After the movable parts are restored to their proper position, the arm 27 is moved downward and rearward to position the lugs 26  
 45 in the semi-circular openings 23, and the parts are now locked in proper position by engaging the shackle of the padlock through the apertures in the ear 28 and lug 30.

A mail chute of my improved construction  
 50 comprises a minimum number of parts, is therefore simple and inexpensive in construction, can be readily assembled or taken apart, and the movable parts can be readily withdrawn from the chute when desired.

55 It will be readily understood that minor changes in the construction and form of the various parts of the chute can be made without departing from the nature and principle of my invention.

60 I claim:

1. In a mail chute, a support, a continuous back-plate arranged on said support, a series of horizontally movable parts of chute sections positioned in front of the continuous  
 65 back-plate, and horizontally disposed

frames projecting forward from the support and engaging the sides of the chute sections for supporting the same when withdrawn.

2. In a mail chute, a support, a series of horizontally movable parts of chute sections  
 70 arranged in front of the support, arms fixed to the support and projecting forwardly therefrom, and plates secured to the sides of the movable parts and engaging the arms.

3. In a mail chute, a support, a continuous back plate removably positioned on the  
 75 support, a series of horizontally movable parts of chute sections arranged in front of the back plate, arms fixed to the support, projecting forwardly therefrom and engaging  
 80 the sides of the movable parts for supporting the same when withdrawn, and stops on the arms for limiting the outward movement of said movable parts.

4. In a mail chute, a support, a continuous back plate removably positioned on said  
 85 support, a series of movable parts arranged in front of the back plate, means whereby the parts move bodily in a horizontal plane when detached from the back-plate, and  
 90 means whereby the outward movement of the movable parts is limited.

5. In a mail chute, a support, a continuous back-plate removably positioned on the  
 95 support, independently movable parts positioned in front of the back-plate, pairs of arms extending forward from the support for holding the movable parts when the same are withdrawn from the continuous  
 100 back-plate, stops on said arms and means whereby each movable part is locked to the support.

6. In a mail chute, a support, a continuous back plate removably positioned on said  
 105 support, a series of movable parts arranged in front of the back plate, means whereby the parts move bodily in a horizontal plane when detached from the back-plate, pairs of arms projecting forward from the support  
 110 whereby the outward movement of the movable parts are limited, and means whereby each movable part is locked to the support.

7. In a mail chute, a support, a member arranged to rock therein, a mail chute section  
 115 arranged in front of and detachably connected to the support and means carried by said chute section for engaging the ends of the rocking member when said chute section is in proper position.

8. In a mail chute, a support, a locking  
 120 rod arranged for operation therein, a movable part arranged in front of the support, and slotted plates carried by the movable part, which slotted plates engage the ends of the locking rod when the movable part is  
 125 in proper position.

9. In a mail chute, a support, a locking  
 130 rod arranged for operation therein, a movable part arranged in front of the support, slotted plates carried by the movable part,



which slotted plates engage the ends of the locking rod when the movable part is in proper position, and means whereby the rod is locked against movement when the ends thereof are engaged by the slotted plates.

10. In a mail chute, a support, a locking rod arranged for rotation therein, a movable part arranged to move bodily in a horizontal plane in front of the support, slotted plates carried by the movable part and engaging the ends of the rod when the part is in proper position, and means whereby the locking rod is locked to hold the part in proper position.

11. In a mail chute, a back-plate, the side edges of which are bent so as to form grooves which are V-shaped in cross-section, and front and side walls, the rear edges of which side walls occupy the V-shaped grooves in the back-plate when the chute is assembled.

12. In a mail chute, a back-plate, the side edges of which are bent so as to form grooves which are V-shaped in cross-section, front and side walls, the rear edges of which side walls occupy the V-shaped grooves in the back-plate when the chute is assembled, and means whereby the parts are locked after being assembled.

13. In a mail chute, a support, a continuous back-plate detachably secured to said support, there being V-shaped grooves

formed at the sides of the back-plate, front and side walls, the rear ends of which side walls are flanged inward and occupy the grooves in the back-plate when the parts of the chute are assembled, and means whereby the parts forming the chute are locked after being assembled.

14. In a mail chute, a support, a continuous back plate arranged thereon, a series of horizontally movable parts of chute sections positioned in front of the back plate, a locking rod arranged for operation in the support and adapted to engage portions of the movable parts of chute sections.

15. In a mail chute, a support, a continuous back plate arranged thereon, a series of horizontally movable parts of chute sections arranged in front of the back plate, horizontal arms projecting forward from the support, plates on the horizontally movable parts of chute sections, which plates engage said arms, and stops on the plates and arms for limiting the outward movement of the movable parts of the chute sections.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, this 30th day of March, 1909.

EMIL A. KUMMING.

Witnesses:

ALMA GEBHART,  
LENORE CLARK.