May 10, 1932. H. R. CLARK 1,857,778

DETACHABLE PANEL MOUNTING

Filed Sept. 17, 1929

Fig. 1.

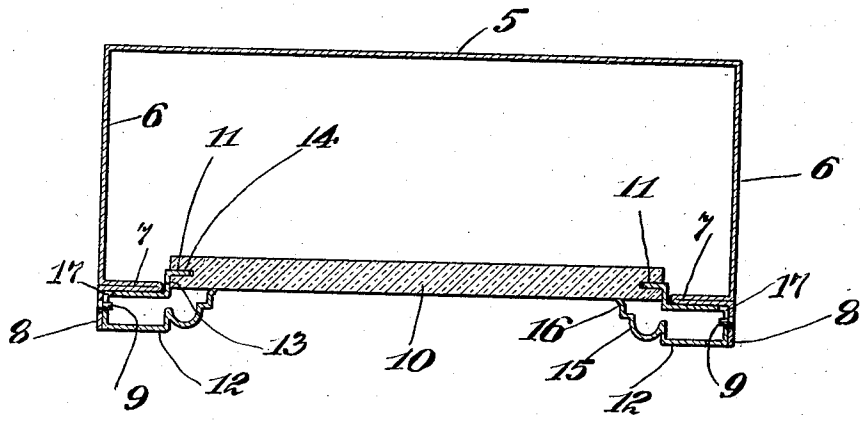


Fig. 2.

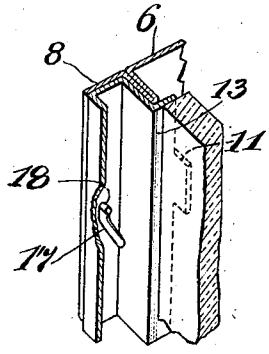


Fig. 3.

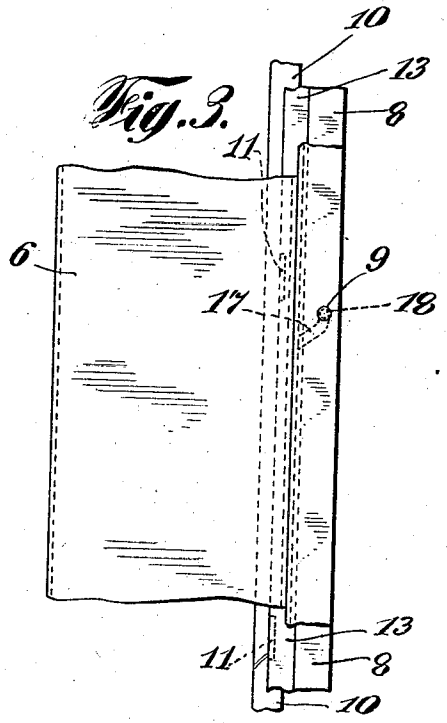
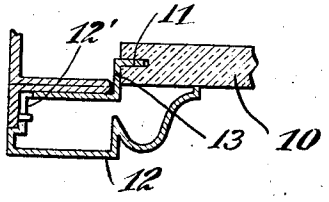


Fig. 4.



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UNITED STATES PATENT OFFICE

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DETACHABLE PANEL MOUNTING

Application filed September 17, 1929. Serial No. 393,168.

This invention relates to a detachable panel mounting, and while of more or less general application and use, is particularly designed for the purpose of enabling glass panels to be easily and quickly mounted upon or detached from the opposite side walls of mail chutes, such as are commonly found in office buildings.

It is one of the important features of my present invention to provide a glass panel for such mail chutes having sheet metal molding strips extending along the opposite side edges thereof and which are rigidly connected with and secured to the glass panel in such manner as to securely support the panel against possibility of shifting relative to the walls of the mail chute, and also eliminate any projection on the inner face of the panel forming crevices in which the mail matter might be caught and held, thus clogging the chute.

It is also another novel feature of my present invention to provide simple and reliable means for detachably connecting the molding strips with the side walls of the chute at their front edges which will automatically act to urge the moldings into close frictional contact with inwardly projecting flanges on said side walls when the panel is mounted in position.

With the above and other objects in view, the invention consists in the improved detachable panel mounting and in the form, construction, and relative arrangement of its several parts as will be hereinafter more fully described, illustrated in the accompanying drawings, and subsequently incorporated in the subjoined claims.

In the drawings wherein I have shown a simple and practical embodiment of the invention and in which similar reference characters designate corresponding parts throughout the several views,—

Figure 1 is a horizontal sectional view through a mail chute showing one form of my present invention.

Fig. 2 is a fragmentary sectional perspective view;

Fig. 3 is a side elevation certain parts being shown in section; and

Fig. 4 is a fragmentary horizontal section showing a slightly modified form of the panel molding.

Referring in detail to the drawings, the body 5 of the mail chute, in connection with which I have illustrated an application of my present improvements, is formed from heavy gauge sheet metal, and as shown, the opposite side walls 6 thereof adjacent their forward edges have parts inwardly bent to provide the vertically extending flanges 7 of double thickness, the front marginal edges 8 projecting forwardly from said flanges in the plane of the side walls 6. Each of the edge portions 8 of the walls 6 is provided at points vertically spaced a suitable distance from each other, with inwardly projecting studs or pins 9 which are welded or otherwise suitably fixed to the parts 8.

The panel 10, which in the present instance is of glass of suitable width, length, and thickness, is provided at its opposite edges and intermediate of its front and rear faces at longitudinally spaced points with recesses indicated at 11. This panel is securely held between sheet metal molding strips 12 extending along the opposite vertical edges thereof. As illustrated, each of these molding strips has a substantially rectangular body portion, the rear wall of which at its inner edge is formed with a continuous and rearwardly projecting flange 13. This flange at longitudinally spaced points is provided with laterally and inwardly projecting lugs 14 which are adapted to closely fit within the recesses 11 in the panel 10. Preferably, before insertion I coat the lugs 14 with a suitable cement whereby the molding strips are permanently secured to the glass panel.

The front wall of each molding strip 12 is formed at the inner side thereof with an ornamental marginal portion 15 resiliently bearing at its free edge 16 against the outer face of the panel 10 at a point spaced inwardly from the vertical side edge thereof.

The outer side wall of each molding 12 is provided at one or more points in accordance with the spacing of the pins 9, with bayonet slots 17. These slots open upon the rear side of the molding and are forwardly and upwardly inclined and terminate at their for-

ward ends in the angularly upwardly extending portions 18 substantially parallel with the lengthwise dimension of the molding.

It will be understood that in the use of my invention on mail chutes, the usual removable horizontal locking bars (not shown) extend between the opposite side walls of the chute body and separate the glass panels from each other, said bars cooperating with the abutting ends of the moldings 12 on adjacent panels to prevent the unauthorized removal of said panels. When mounting the individual panels to close the front open side of the chute body, the moldings 12 are positioned between the front marginal edges 8 of the side walls of the chute and the studs or pins 9 engaged in the open ends of the bayonet slots 17. The panel is then forced inwardly and at the same time shifted downwardly. As the pins or studs 9 ride upon the inclined walls of the slots 17 and enter the closed ends 18 thereof, the moldings 12 are drawn into close bearing contact against the outer faces of the flanges 7 on the side walls of the chute body, while the panel 10 projects inwardly beyond these flanges, as clearly shown in Fig. 1 of the drawings. The inner face of this panel presents an entirely smooth and uninterrupted surface offering no obstruction to the gravity descent of mail matter through the chute. Heretofore, in structures of this kind, the rear wall of the molding strip usually projected over the rear side of the glass panel and had resilient bearing contact therewith. This arrangement frequently caused clogging of the chute as pieces of mail would become caught between the edge of the molding and the rear face of the glass so that frequent removal of the glass panel was necessary in order to dislodge the obstructing mail. In my present improved construction, it will be apparent that this is impossible, all cracks or crevices at the inner side of the glass panel in which the mail matter might lodge or be caught being eliminated.

In removing the panel from the chute body, after the horizontal locking bar between the adjacent panels has been removed, the lower panel is merely lifted vertically so as to disengage the closed end portions 18 of the bayonet slots 17 and the pins 9, and is then moved outwardly or forwardly and upwardly, as the inclined portions of the slots 17 are disengaged from said pins. It will be evident that by means of this pin and slot connection between the panel moldings and the side walls of the chute body, the panels can be easily and quickly mounted in place to close the chute or removed when access to the interior of the chute is necessary, and without necessitating the use of special tools for this purpose.

In Fig. 4 of the drawings I have illustrated a slightly modified form of the molding 12, in which the rear portion of the outer side wall of said molding is inwardly offset from the plane of the remaining portion thereof as indicated at 12′, such inwardly offset portion being provided with the bayonet slots 17. Thus in this construction when the moldings are attached to the forward edges of the side walls of the chute body, the front portions of the moldings extend beyond said side walls, said walls and the forward portions of the outer side walls of the moldings being positioned in the same plane. On the other hand, in the construction shown in Fig. 1, it will be noted that the forward edges of the front marginal portions 8 of the side walls of the chute body are visible and terminate in the plane of the front surfaces of the moldings 12.

From the foregoing description, considered in connection with the accompanying drawings, the construction, manner of use, and many advantages of my present invention will be clearly understood. It will be seen that a device of this construction while insuring the maximum stability of the glass panels when mounted on the mail chute body, as well as the complete elimination of any projections on the inner face of the glass panel which might cause clogging of the chute, the structure is nevertheless of very simple form. It may, therefore, be manufactured and employed in mail chute structures without a material increase in cost over the mail chute structures as now used in this art.

The parts 13 of the mold members have close frictional contact against the inner edges of the flanges 7 and on the chute walls.

I have herein shown a very practical and serviceable embodiment of my invention, but it nevertheless will be understood that it is possible that the desired results might also be obtained in other structural embodiments thereof. Accordingly, the privilege is reserved of resorting to all such legitimate changes in the form, construction, and relative arrangement of the several parts as may fairly be considered within the spirit and scope of the appended claims.

I claim:—

1. In combination with a rectangular body structure open on one side, a closure panel for said open side of the body structure, ornamental moldings attached to the opposite side edges of said panel, each of the side walls of the body structure being provided adjacent the open side thereof with an inwardly projecting vertical flange, each of said body walls outwardly of the vertical flange thereon being provided with an inwardly projecting pin, and each of the panel moldings having a bayonet slot in its outer side provided with an obliquely inclined portion opening upon the rear face thereof, said

bayonet slots adapted to receive said pins in mounting the panel in position whereby the rear faces of said moldings are urged into close frictional contact against the vertical flanges on the body walls.

2. A closure panel for mail chutes comprising a glass plate, an ornamental sheet metal molding extending along each of the opposite side edges of said plate and having a substantially rectangular body portion providing front and rear walls, the front wall at its inner edge having a marginal flange resiliently bearing upon the front surface of the glass plate, and the rear wall of said molding having its inner edge permanently secured within the edge of the glass plate to thereby provide a smooth, unobstructed inner or rear face upon the closure plate.

3. A closure panel for mail chutes comprising a glass plate, an ornamental sheet metal molding extending along each of the opposite side edges of said plate and having a substantially rectangular body portion providing front and rear walls, the front wall at its inner edge having a marginal flange resiliently bearing upon the front surface of the glass plate, and the rear wall of the rectangular body of the molding being provided at its inner edge with a rearwardly extending longitudinal flange having spaced laterally projecting lugs, and the glass plate being provided in its side edge and intermediate the front and rear faces thereof with recesses in which said lugs are permanently secured whereby the rear or inner face of the closure plate presents a smooth and unobstructed surface.

4. A panel for mail chutes, comprising a transparent plate and sheet metal moldings extending along the opposite side edges of said plate, each of said moldings having a front edge in resilient bearing contact with the front surface of said plate, and a rear edge in contact with an edge face of said plate, and means rigidly and permanently securing the latter edges of the moldings to said plate.

In testimony that I claim the foregoing as my invention, I have signed my name hereto.

HARRY R. CLARK.