July 17, 1928. 1,677,278

A. F. FOEHRENBACH

LOCKER LATCH

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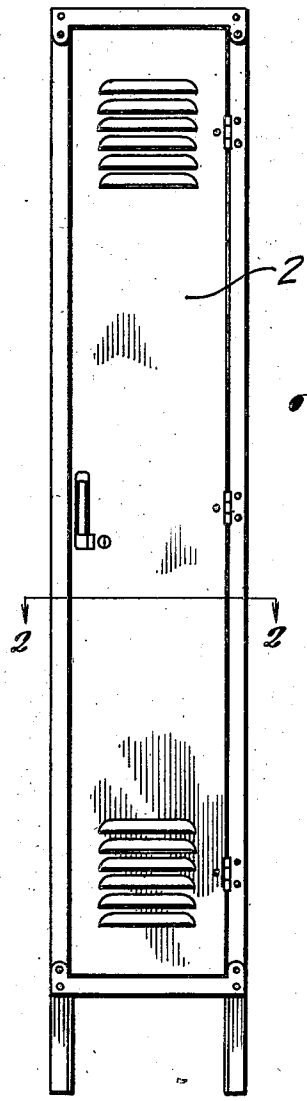


Fig. 1.

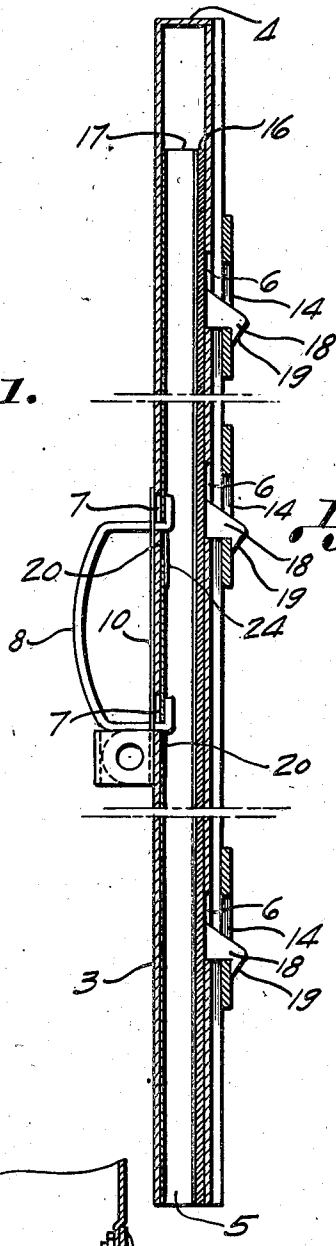


Fig. 3.

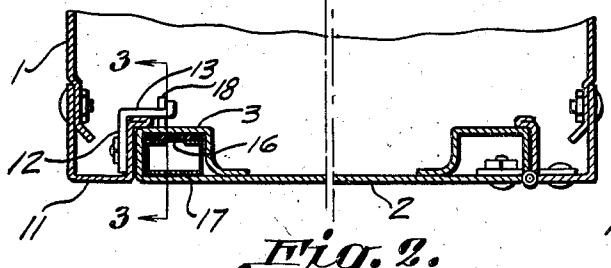


Fig. 2.

Inventor

ARTHUR F. FOEHRENBACH

By William Ider Attorney

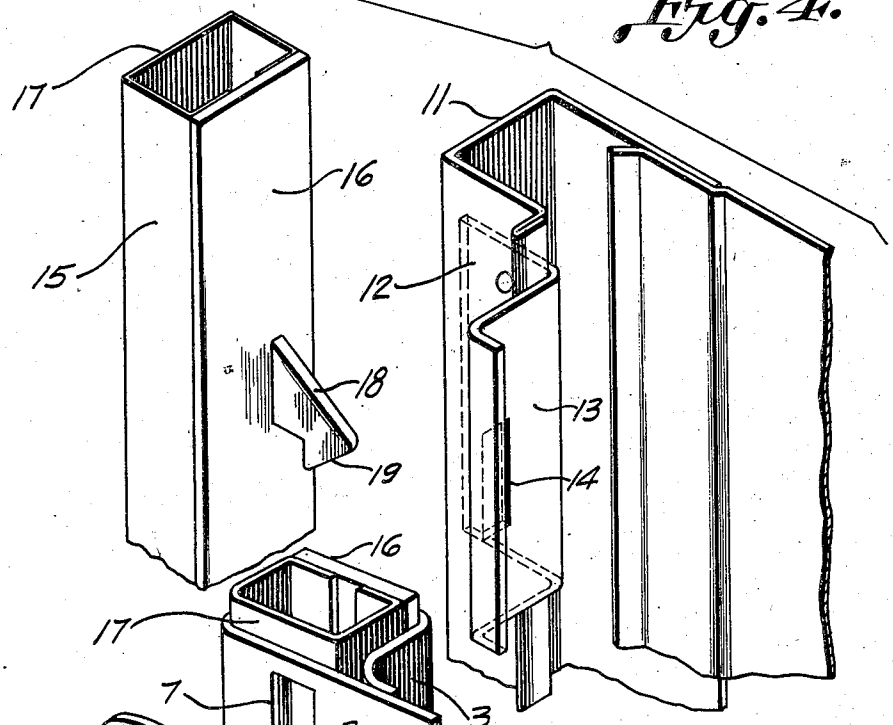
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Fig. 4.



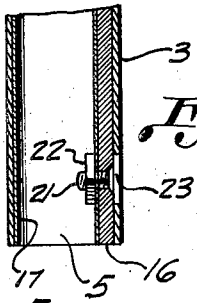


Fig. 6.

Fig. 5.

Inventor

ARTHUR F. FOEHRENBACH

By William Isler Attorney

Patented July 17, 1928. 1,677,278

UNITED STATES PATENT OFFICE.

ARTHUR F. FOEHRENBACH, OF CANTON, OHIO, ASSIGNOR TO THE BERGER MANUFACTURING COMPANY, OF CANTON, OHIO, A CORPORATION OF OHIO.

LOCKER LATCH.

Application filed August 1, 1927. Serial No. 209,811.

This invention has for its object the provision of a latching mechanism for a locker or other enclosure which will be simple in operation, sturdy in construction, permit of easy assembly, and present withal a neat and attractive appearance.

Another object of the invention is to provide a locker door having a tubular formation at the edge thereof, which formation serves not only to reinforce the locker door, but at the same time provides a housing for parts of the latching mechanism.

These and other objects will become more readily apparent in the course of the following description of one embodiment of the invention, taken in connection with the accompanying drawings, wherein

Fig. 1 is a front elevation of a locker in which is embodied the novel latching mechanism;

Fig. 2 is a cross-section through the door and adjacent portions of the locker, taken on the line 2—2 of Fig. 1;

Fig. 3 is a cross-section through the tubular housing and the latching bar therein, taken on the line 3—3 of Fig. 2;

Fig. 4 is an exploded view of a portion of the latching bar, showing one of the hooks with its cooperating keeper;

Fig. 5 is an exploded view of the handle and a portion of the housing which is adapted to receive tenoned portions of the handle;

Fig. 6 is a vertical cross-section through the lower end of the housing, showing the manner in which the two parts of the latching bar are connected together after assembling.

In lockers of the type herein described, it has been proposed to enclose a latching bar having hooks thereon, in a tubular housing, the hooks being integral with the bar, and the combined depth of the bar and the hooks being such as to necessitate forming the housing around the latching bar. This operation is so difficult and costly as to be entirely impractical from a commercial standpoint. To remove the bar for repairs or for the purpose of inserting a new bar would necessitate prying open the housing, and such an operation would amount to a virtual destruction of the locker door.

The present invention overcomes these difficulties in a novel manner, as will now be described. Referring more particularly to the drawings, the locker consists of a sheet metal body 1, and a door 2 hinged thereon. The door 2 is formed at one of its side edges with a tubular reinforcement or housing 3, closed at the top by the door flange 4 and open at the bottom as indicated by the numeral 5, to facilitate insertion and removal of the latching bar. The housing 3 has vertically disposed slots 6 at the rear thereof, and vertically disposed slots 7 at the front thereof. The slots 6 serve a purpose to be presently described, while the slots 7 serve to receive parts of the handle. The handle is formed by bending a strip 8 to a U-shape and providing tenoned portions 9 at the ends thereof. These tenoned portions are forced into mortised portions of the flat strip 10, as shown in Fig. 5, and are adapted to enter the slots 7 in the housing after the latching bar has been assembled.

The locker body 1 is also provided with a vertically extending jamb plate 11, U-shaped in cross-section, and having keepers 12 riveted or otherwise secured thereto at spaced intervals thereon. The keepers 12 are formed with laterally extending portions 13, having vertically disposed slots 14 therein, which are in registration with the slots 6 in the housing 3 when the door occupies its closed position, as shown in Figs. 2 and 3.

The latching bar, designated hereinafter as a unit by the numeral 15, consists of two parts, namely, a flat bar 16 and a backing bar 17, channel-shaped in cross-section. The flat bar 16 has hooks 18 secured therein at spaced intervals, but if desired, these hooks may be struck up from the bar itself in a well-known manner. The hooks are formed with a sloping lower edge 19. The backing bar 17 has vertically disposed slots 20 therein, which are also adapted to receive the tenoned portions 9 of the handle.

In assembling the latching bar, the flat bar 16 is first inserted through the opening 5 at the lower end of the housing 3, and is pushed up into the housing until the hooks 18 thereon are opposite the slots 6. The bar is then permitted to fall against that face of the housing which has the slots 6 therein, so that the hooks will project from the housing through these slots. The backing bar 17 is then pushed up into the hous-

ing through the opening 5 until its lower end is flush with the lower end of the flat bar, and the two bars are then connected together, as by means of a bolt 21 and nut 22, the bolt being inserted through an opening 23 in the lower end of the housing, as clearly shown in Fig. 6. It should be noted that the total depth of the flat bar and the hooks secured therein, does not exceed the depth of the housing, and that the combined depth of the flat bar and the backing bar is approximately equal to the depth of the housing, so that the latching bar has a sliding fit in the housing.

The handle is then mounted on the door in the following manner:

The index finger of one hand is inserted through the opening 5 at the bottom of the housing 3, until it contacts with the lower end of the latching bar 15. The bar is then pushed upwardly until the slots 20 in the backing bar register with the slots 7 in the housing. The handle is then moved forward with the other hand in direction indicated by the arrows in Fig. 5, whereupon the tenoned portions 9 will enter the slots 7 and slots 20, and the flat strip 10 of the handle will contact the housing. The finger of the hand is then removed from the opening 5, and the latching bar 15 will fall and securely lock the handle against outward movement, as clearly shown in Fig. 3.

In order to prevent any relative movement between the handle and the latching bar, so as to avoid accidental displacement of the handle from the door, the backing bar is provided w.th a flat spring 24 which abuts the lower end of the upper tenoned portion 9 of the handle, after the latching bar has fallen to engage said tenoned portion.

The operation of the latching mechanism is briefly as follows:

When the door is closed, the sloping edges 19 of the hooks ride up over the lower edges of the slots 14 in the keepers 13, and when these sloping edges have passed entirely through the slots, the latching bar falls by its own weight to effect latching. The door may then be opened by moving the latching bar 15 upwardly by means of the handle until the hooks are clear of engagement with the keepers.

Claims—

1. Latching mechanism for use in a door having an open-ended tubular housing, comprising, a latching member positioned in the housing and having angularly projecting hooks adapted to project through slots in said housing, and means insertable through the open end in said housing after said member is positioned in the housing, said means cooperating with said latching member whereby to maintain it in operative position in the housing.

2. The structure defined in claim 1, wherein said latching member includes a flat bar.

3. In a latch for lockers having a door provided with a tubular reinforcement along one edge thereof and open at one end, a latching member having hooks projecting at right angles therefrom, adapted to be mounted in said tubular reinforcement, and insertable through the open end thereof, and a backing bar insertable through the open end of the reinforcement after the latching bar is in position, and adapted to lie adjacent the latching member, and coacting therewith to maintain it in operative position.

In testimony whereof I affix my signature.

ARTHUR F. FOEHRENBACH.