Aug. 13, 1929. C. HOLTZ 1,724,023

SIDEWALK DOOR

Filed March 9, 1928

Fig. 1

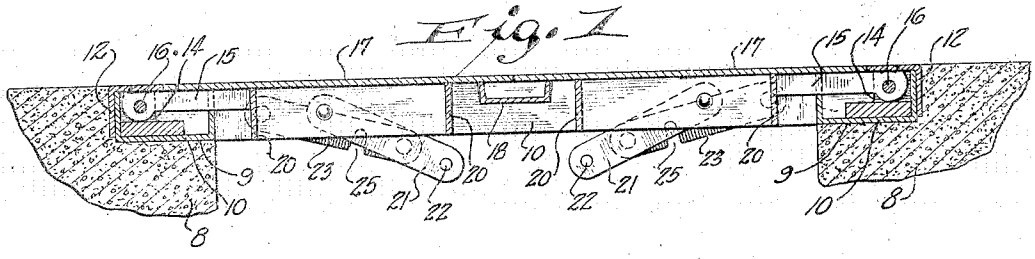


Fig. 2.

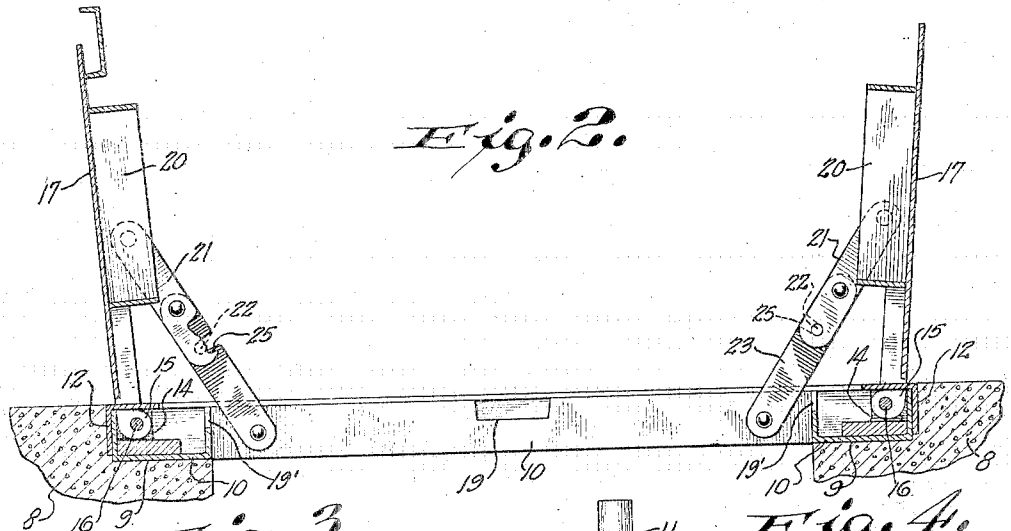


Fig. 3.

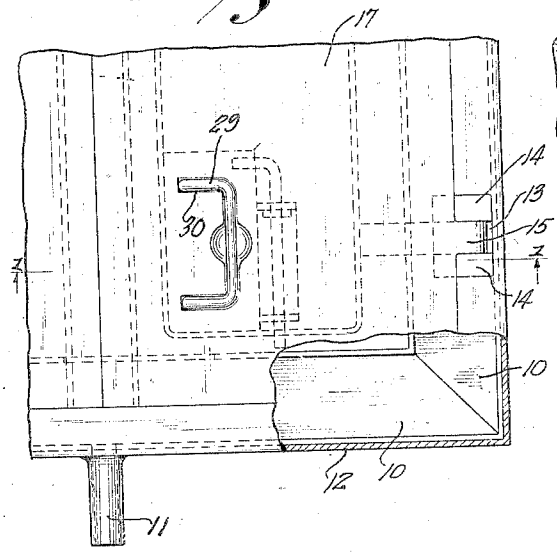
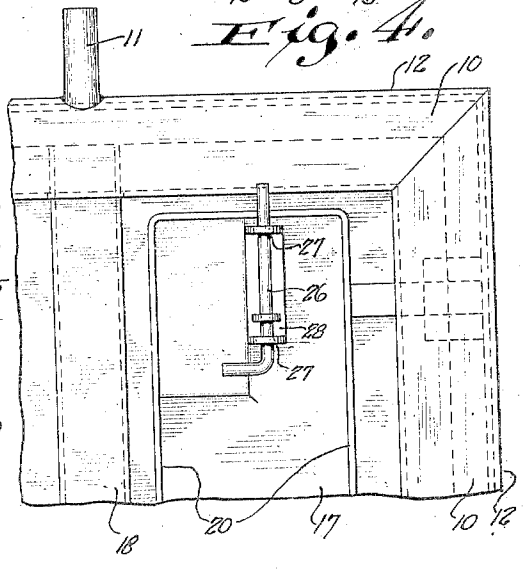


Fig. 4.



INVENTOR.

Charles Holtz.

BY

Morsell, Keeney & Morsell

ATTORNEYS.

Patented Aug. 13, 1929. 1,724,023

UNITED STATES PATENT OFFICE.

CHARLES HOLTZ, OF MILWAUKEE, WISCONSIN, ASSIGNOR TO C. HENNECKE COMPANY, OF MILWAUKEE, WISCONSIN, A CORPORATION OF WISCONSIN.

SIDEWALK DOOR.

Application filed March 9, 1928. Serial No. 260,519.

This invention relates to improvements in sidewalk doors.

It has been common practice heretofore to construct sidewalk doors in such a manner that, when in open position, the inner edge of each door would be received by a longitudinal recess in the door frame. Naturally, in the winter time, snow and ice would accumulate in these recesses and render it difficult or impossible, without first dislodging and removing the ice, to open the doors.

It is one of the objects of this invention to overcome the above-mentioned objection, and to provide sidewalk doors in which the hinge edges of the doors will swing clear of the frame, rendering it unnecessary to have the objectionable recesses.

It is a further object of this invention to provide sidewalk doors all parts of which will be flush with the walk.

It is a further object of this invention to provide sidewalk doors having means for carrying off all rain water which may leak through the crevices between the doors, or between the doors and the frame.

It is a further object of this invention to provide sidewalk doors in which a means is employed for supporting the doors centrally, to eliminate the possibility of their sagging when subjected to weight from above.

It is a further object of this invention to provide sidewalk doors in which a novel form of hinge construction is employed.

It is a further object of this invention to provide sidewalk doors which are simple in construction and well adapted for the purpose described.

With the above and other objects in view, the invention consists of the improved sidewalk doors and all their parts and combinations as set forth in the claims and all equivalents thereof.

In the accompanying drawing, in which the same reference characters designate the same parts in all of the views:

Fig. 1 is a cross sectional view of the doors in the closed position, fragmentary parts of the walk being shown;

Fig. 2 is a similar view showing the doors in the open position;

Fig. 3 is a fragmentary plan view of the closed doors, parts being broken away and parts being shown in section; and

Fig. 4 is a fragmentary bottom view thereof.

Referring to the drawing, the numeral 8 designates portions of the sidewalk which are recessed at 9 to receive a rectangular frame. The latter comprises four channel bars 10 having mitered corners welded or otherwise secured together. These channel bars form a gutter to carry off rain water and are provided at one side with an opening communicating with a tubular extension 11 to which a drain pipe may be connected. Four angle bars 12 also form part of the frame, and each angle bar has one side secured to the outer edge of a channel bar, the other side overlapping the open top of the channel. Hinge openings 13 are provided in two opposite angle bars, and within these openings are bifurcated stationary hinge members 14, the top of which are flush with the angle bars.

Hinge extensions 15, pivoted between the bifurcated portions of the stationary hinge members on pins 16, are secured to the lower surface of the doors 17. The outer ends of the hinge extensions are flush with the upper surface of the doors, so that when the latter are closed there are no projections above the walk.

The outer edge of one of the doors has a channel bar 18 extending therealong, and projecting therefrom. This forms a gutter to receive any water which may leak through the crack between the two doors when in the closed position. As the channel communicates with the main gutter 10, the water will be taken care of without allowing it to go into the basement below. Recesses 19 in two of the opposite channel bars 10 accommodate the ends of the channel 18 when the doors are closed, and recesses 19′ in the other two channel bars receive the hinge extensions 15.

A reinforcing frame 20 is secured to the inner side of each door and to a portion of each frame a link 21, having a pin 22 projecting near its outer end, is pivotally connected. Pivoted at one end to an intermediate portion of each of these links is a second link 23. Each of the links 23 has its other end pivoted to the adjacent channel bar 10. The links 23 are formed with recesses 25 to receive the pins 22 when the doors are opened, thereby locking the doors in the raised position.

A bolt 26 slidable in perforations 27 of a bracket 28 is adapted to engage beneath the

door frame to lock the doors when shut.

On the top of one of the doors a handle 29 is pivotally connected, and it is adapted to lie in a recess 30 when not being used.

This novel form of construction provides sidewalk doors in which all parts are flush with the walk when in the closed position, as may readily be seen in Figs. 1 and 3. Furthermore, the inner edges of the doors, when raised, swing clear of the frame, obviating the necessity of having recesses to accommodate them as illustrated in Fig. 2. The disposal of rain water is also well provided for by the gutters 10 and 18. A further novel feature is the reinforced door construction, as the frames 20 adequately strengthen each door, and the channel 18, in addition to serving as a gutter, acts to reinforce the doors centrally when closed, to prevent them from sagging.

Although the device has been described as embodying a pair of doors, it is not desired to be limited to a plurality, as the broad concept of the invention also contemplates its use in a construction comprising one door only.

From the foregoing description, it may be seen that the improved sidewalk doors are simple in construction, and well adapted for the purpose described.

What I claim is:

1. A sidewalk door construction comprising four channel bars connected at their ends to form a rectangle, an angle bar for each channel, one side of each angle bar being connected to the outer side of its respective channel bar and the other side overlapping the open top of the channel bar, the overlapping sides of two oppositely positioned angle bars having recesses therein, a hinge member mounted on the channel bar below each of said recesses, the top of each of said hinge members being flush with the upper surface of the angle bars, a pair of doors, hinge members extending from the inner edges of said doors, and pivotal means connecting said hinge members with the frame hinge members

2. A sidewalk door construction comprising four channel bars connected at their ends to form a rectangle, an angle bar for each channel, one side of each angle bar being connected to its respective channel bar and the other side overlapping the open top of the channel bar, the overlapping sides of two oppositely positioned angle bars having recesses therein, a hinge member mounted on the channel bar within each of said recesses, the top of each of said hinge members being flush with the upper surface of the angle bars, a pair of doors, hinge members extending from the inner edges of said doors, and pivotal means connecting said hinge members with the frame hinge members.

In testimony whereof, I affix my signature.

CHARLES HOLTZ.