

Sept. 22, 1925.

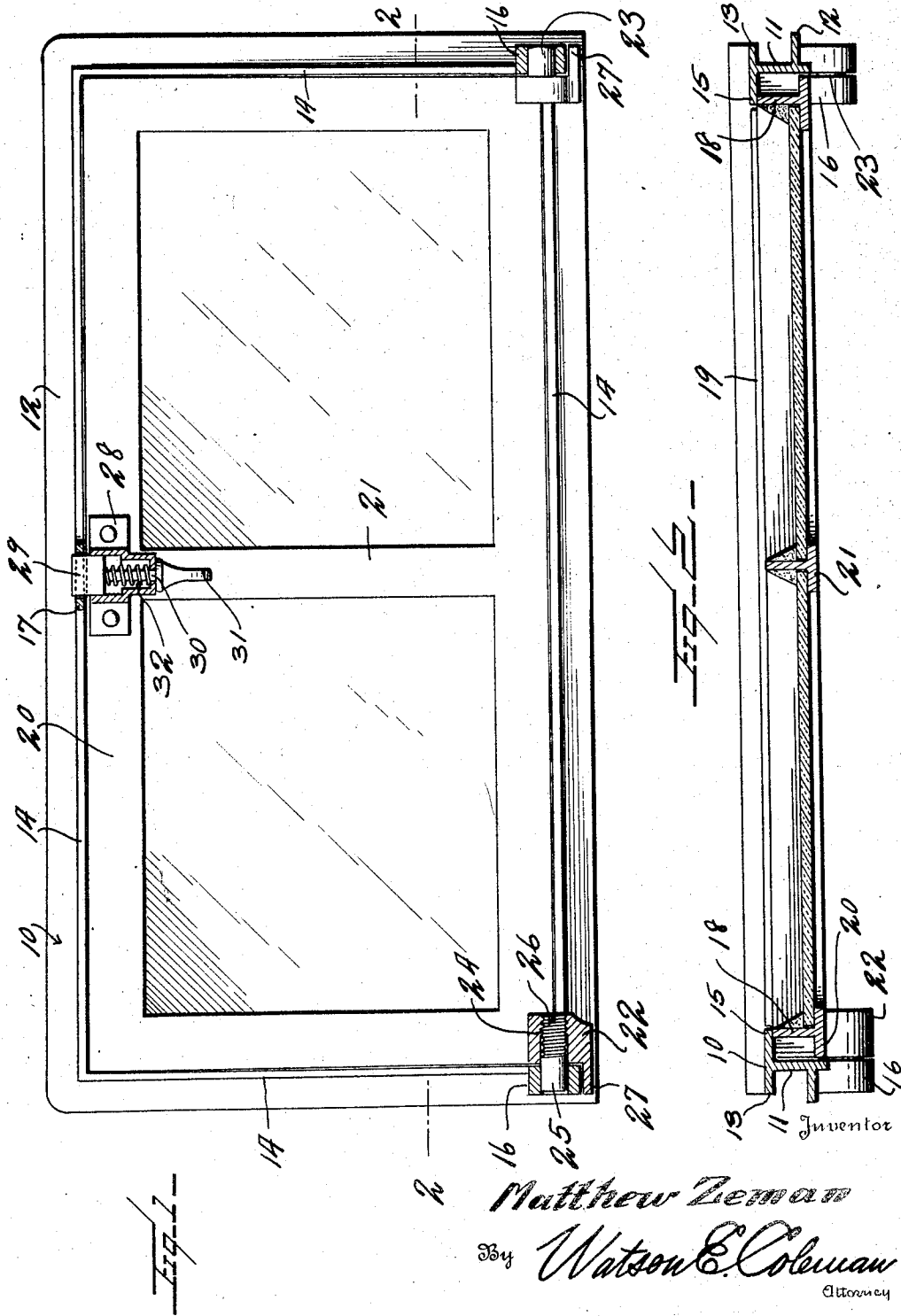
1,554,541

M. ZEMAN

BASEMENT WINDOW

Filed March 17, 1925

2 Sheets-Sheet 1



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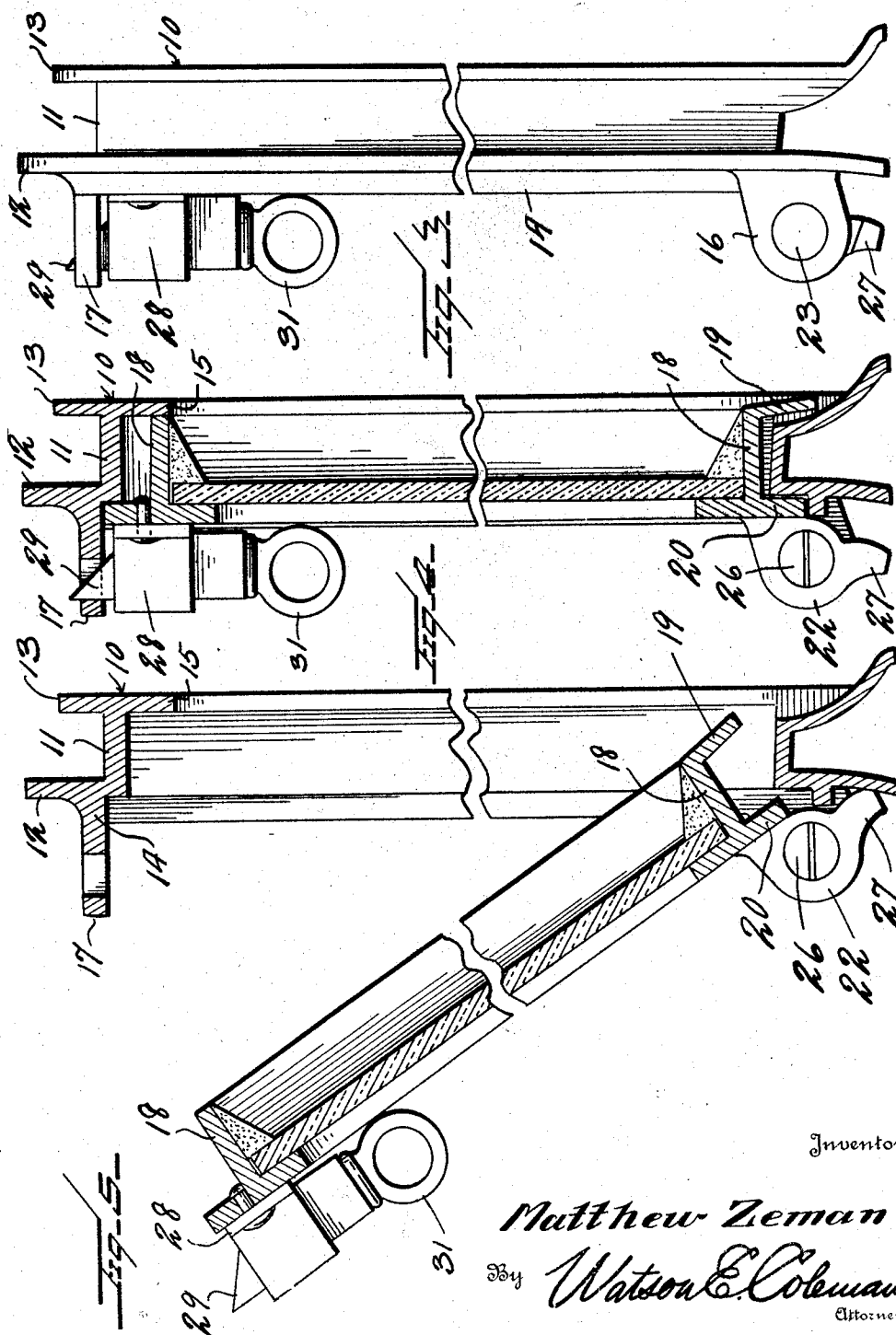
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

MATTHEW ZEMAN, OF CLEVELAND, OHIO.

BASEMENT WINDOW.

Application filed March 17, 1925. Serial No. 16,243.

To all whom it may concern:

Be it known that I, MATTHEW ZEMAN, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Basement Windows, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to windows, and particularly to metal windows such as are used in basements.

The general object of my invention is to provide a rust-proof basement window which is so constructed that it is entirely water-proof and so formed that the frame can be received either in brick, stone, concrete, or a wood structure.

A further object is to provide a sash which is hinged to the lower portion of the frame so as to open at the top and which is securely locked in its closed position by means of a spring latch on the inside of the sash.

A still further object is to provide a sash which can be readily removed from the frame by loosening the set screw constituting one of the hinges of the sash.

Another object in this connection is to provide a hinge which will prevent the sash from opening to a greater degree than approximately 30° from a vertical plane, this opening being large enough for ventilating purpose but not permitting access through the same from the outside, thereby securing safety even though the window be open.

Still another object is to provide a frame sash which may be readily assembled, which may be cheaply made, and which is thoroughly effective for the purpose intended.

My invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a front elevation of a window constructed in accordance with my invention, the hinges and latch being broken away;

Figure 2 is a section on the line 2—2 of Figure 1;

Figure 3 is a side elevation of the construction shown in Figure 1;

Figure 4 is a vertical section showing the window closed;

Figure 5 is a vertical section on the same plane as Figure 4 but showing the window partly open;

Referring to these drawings, 10 designates the outer frame, which is rectangular in form and which is formed to provide a channel 11, an inner flange 12, and an outer flange 13. Preferably the inner flange 12 is deeper than the outer flange 13, and preferably the frame is formed in one piece by casting. The inner face of the frame is formed to provide an outwardly projecting flange or shoulder 14 which extends entirely around the frame, and preferably there is an outer flange or shoulder 15 which extends around three sides of the frame but not along the bottom rail thereof. Cast upon the lower corners of the frame are the inwardly projecting lugs 16 which are apertured for the passage of the pintles upon which the window sash is hung, and preferably cast integral with the top rail of the frame is the inwardly projecting lug 17 which is apertured for engagement with a spring latch and constitutes a keeper.

The sash, as illustrated in Figure 1, is also formed of a single casting. This frame is rectangular in form and is formed to provide the horizontally extending rails 18 and the vertically extending, marginal flange 19 on the inside face of the frame. The lower rail of the frame is formed with the inner, downwardly extending flange 20 so that the lower rail is channel-shaped in cross section, as shown in Figure 4, and fits over the lower rail of the outer frame when the sash is closed. This sash is preferably strengthened by a medial web 21 which is T-shaped in cross section and at its lower corner is provided with the outwardly projecting lugs 22 which, when the sash is in place, are disposed just inside of the lugs 16 and fit against the same.

One of these lugs 22 carries upon it the fixed, laterally projecting pintle 23 and the other lug carries a projectible pintle 24 which is screw-threaded and has screw-threaded engagement with the bore of the lug 22. The outer end of this screw-threaded pintle 24 is smooth, as at 25, and this smooth portion extends into the aperture in the lug 16 when the pintle 24 is

screwed home. The opposite end of the pintle 24 is provided with the nick 26 whereby a screw-driver may be applied to withdraw the pintle and thus permit the sash frame to be removed from the window frame. Each of these lugs 22 is formed at its lower edge with a laterally projecting off-set portion 27 constituting a stop and adapted to bear against the frame of the window below the lug 16 and these stops 27 are so located that the sash cannot be opened to a greater extent than an angle of 30° to the vertical.

Preferably there is mounted upon the sash the spring-actuated latch, the housing of which is designated 28. The latch bolt is designated 29 and is received in a recess in the housing and has a reduced shank 30 which engages with a bolt handle 31 disposed below the housing. A spring 32 forces the bolt upward and into engagement with the keeper 17. Thus when the sash is closed, the latch bolt, which is beveled upon one face, engages within the keeper 17 and holds the window closed so that it cannot be opened from outside. When the window is open, however, the stops 27 prevent the window from being opened to a greater degree than as before stated. This, while permitting ventilation, will not permit the sash to be so far opened that anyone may obtain access to the house through this window opening.

A sash constructed in accordance with my invention may be readily removed from the window frame by simply retracting the pintle 24 by turning it with a screw-driver in one direction. When this pintle has been removed, this side of the sash may be shifted slightly inward and then the sash be given a transverse movement which will withdraw the pintle 23. The whole sash frame then comes out. The window may be replaced by a reverse operation and as easily. It will be seen that when the window is in place, the flange 20 of the sash fits down over the inner face of the channel-shaped window frame and rests against the longitudinally extending flange or rib 14 and the entire face of the sash rests within the space defined by this rib 14. Exteriously the flange 19 fits down over the depending flange 13 of the lower rail so that the window is entirely water-proof and no rain can beat in. Suitable panes are held in place in the sash by means of putty or any other suitable means to this end. Preferably the sash and frame are cast from an alloy composed of aluminum and zinc, which I have found to be rust-proof and capable of withstanding all weather usages and which will not break, bend or turn brittle. The channel-shaped frame permits it to be used with brick, stone, concrete or wood. By hinging the sash at the bottom,

I provide for a better ventilation and prevent accidental breakage.

I do not wish to be limited to any particular material from which the sash and frame may be made, as rustless steel might be used or any other alloy which would be rustless and yet not brittle.

While this window has been particularly designed for basement windows, it is obvious that it might be used in other situations.

I claim:—

1. A window comprising a rectangular window frame, the face of the window frame being provided with outwardly projecting lugs, a rectangular sash adapted to fit within the rectangular frame when closed and having lugs disposed to fit between the lugs on the frame, one of the lugs on the frame and the corresponding lug on the sash being provided, one with a screw-threaded aperture and the other with a registering aperture, and a withdrawable pintle having threads engaging the threads of said aperture.

2. A window comprising a rectangular window frame channel-shaped in cross section, the inner face of the window frame being provided with outwardly projecting lugs, a sash rectangular in cross section adapted to fit within the rectangular frame when closed, the sash having lugs disposed to fit between the lugs on the frame, one of said sash lugs having a pintle adapted to engage within the corresponding lug of the window frame, the other lug being interiorly screw-threaded, and a withdrawable pintle having screw-threads engaging with the screw-threads of the lug and adapted thereby to be shifted into or out of engagement with the corresponding lug on the frame.

3. A window comprising a rectangular window frame channel-shaped in cross section, the inner face of the window frame being provided with outwardly projecting lugs, a sash rectangular in cross section adapted to fit within the rectangular frame when closed, the sash having lugs disposed to fit between the lugs on the frame, one of said sash lugs having a pintle adapted to engage within the corresponding lug of the window frame, the other lug being interiorly screw-threaded, and a withdrawable pintle having screw-threads engaging with the screw-threads of the lug and adapted thereby to be shifted into or out of engagement with the corresponding lug on the frame, each of said lugs on the sash being provided with a laterally projectible stop engageable with the frame and limiting the opening movement of the window.

4. A window of the character described comprising a frame and a sash, the frame having inwardly projecting lugs on its inner face and at its lower corners the sash having

- inwardly projecting lugs on its inner face and at its lower corners bearing between the lugs on the frame, a fixed pintle carried by one of said sash lugs and engaging the
5 corresponding frame lug, the other sash lug being screw-threaded, and a pintle having screw-threaded engagement with said last named sash lug and engaging in the corresponding frame lug.
- 10 5. A window of the character described comprising a window frame formed of a single casting channel-shaped in cross section, the inner face of the frame being formed with an outwardly projecting flange
15 defining a rectangular seat, the outer face of the frame having on three sides an inwardly projecting flange, the inner face of the frame at its lower corners being provided with outwardly projecting, apertured
20 lugs, a sash frame angular in cross section to provide a rectangular body portion adapted to fit within the window frame and bear against the outer flange and to provide a flange at right angles to the body portion and adapted to bear against said seat and
25 fit within the flange on the inner face of the main frame, the sash frame being provided at its lower corners with outwardly projecting lugs, one of said lugs having a fixed
30 pintle adapted to engage in the corresponding lug of the main frame and the other sash lug having a screw-threaded aperture, a screw-threaded pintle engaging therewith and adapted to engage in the other lug of
35 the main frame, and a spring latch and keeper mounted on the interior faces of the sash frame and main frame and adapted to hold the sash frame in a closed position, the sash frame being formed upon its outer
40 face on its lower margin with a downwardly extending flange fitting over the channel-shaped main frame.
- In testimony whereof I hereunto affix my signature.

MATTHEW ZEMAN.