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WINDOW FRAME CONSTRUCTION

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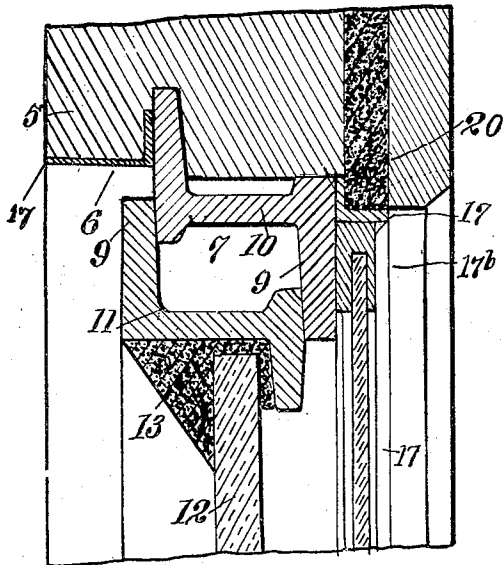


Fig. 1.

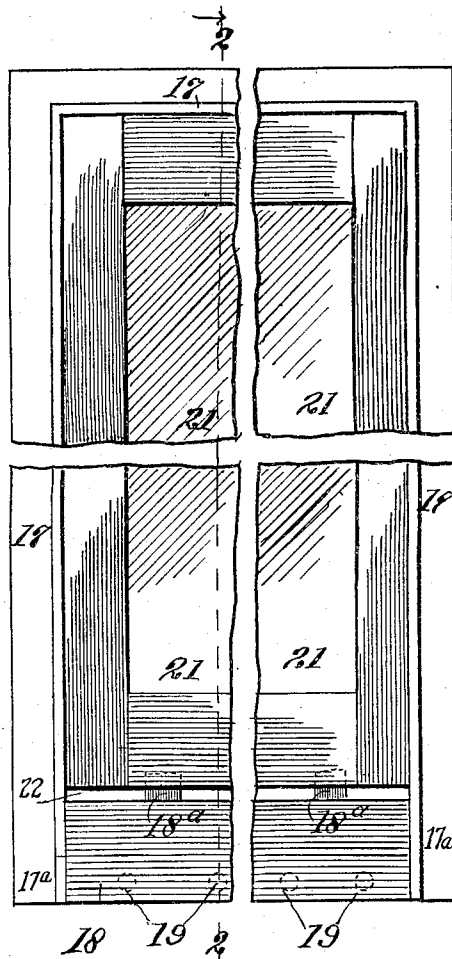


Fig. 2.

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WINDOW FRAME CONSTRUCTION

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This invention relates to window frame construction, particularly for metal window frames, as usually used in brick or concrete construction.

5 The present invention has for its objects to provide means whereby water caused by condensation or otherwise on the inner side of a window may be caught or trapped as it drips downwardly and passed outside the
10 building, so as not to drip below the window sill onto the inner wall surface and thereby disfigure or stain the plaster or other inner wall coating; another object is to provide, in cooperation with a window sash, a flange
15 projection from the inner face thereof which is adapted to extend outwardly from the frame to act as a plaster stop along the two vertical and the upper horizontal inner faces of the frame and project outwardly so as to
20 hold a screen, a secondary window or curtain therein, and to form end walls for a trough or drain which receives the drippings of moisture from the glass of the window; a further principal object is to produce a sim-
25 plified, economical structure for the purposes above set forth which may be easily applied by unskilled workmen, which has the least possible number of parts, which requires no special machinery or stampings to
30 construct, and which can be made from standardized materials at any point where the construction work is being done.

The present used structures for accomplishing the foregoing objects are very ex-
35 pensive, are complicated in detail and usually require expensive dies or stamping machinery to manufacture. The present practice of plastering around a window sash of the metal construction type requires expert
40 plasterers around the windows to edge or point the plaster.

With the above mentioned and other objects in view, the invention consists in the novel construction and combination of parts
45 hereinafter described, illustrated in the accompanying drawings and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be

resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In connection with the following specification, reference is made to the accompanying drawings, wherein similar reference characters indicate corresponding parts, and in which—

Fig. 1 is a front elevation from inside of building.

Fig. 2 is a vertical section on line 2—2 of Fig. 1.

Referring to the drawings, 5 represents a wall of any suitable construction, such as brick or concrete, having an opening 6 there-
65 through for placement of a window. Fixedly mounted in the opening 6 is provided a frame 7 usually of angle iron construction having a wing 8 for positioning the frame
70 relative to the wall 5 and a second wing 9 extending in an opposite direction from wing 8, said wings connected in spaced relationship by an I-beam construction 10
75 which form a horizontal plate therebetween. This frame extends on the vertical and horizontal sides of the opening 6. Mounted upon the frame 7 is a window sash 11 which may be fixedly mounted or divided into upper and lower sashes slidable relative to each
80 other and the frame for ventilation purposes, or the unitary frame may be hinged at one side for this purpose. The window sash 11 mounts a pane 12 of glass or other suitable material which is positioned in the
85 general plane of the sash by the usual means of putty, cement, or strips 13. The frame 7 is provided with a boss 14, being an extension of the wing 8, and the frame 7 along the lower horizontal side thereof has open-
90 ings 15 therethrough preferably extending obliquely downwardly from the upper surface of the horizontal plate 10 to the outside of the frame. The extending wing 9 of the lower horizontal side of the frame 7 is also
95 provided with openings 16 extending there- through.

On the inner face of the frame 7 and extending across the upper horizontal and the two vertical members thereof is mounted a projecting flange 17 preferably of angle iron 100

construction having portions connected at angle of 90°. This projection at its lower end 17a forms end walls for a trough 18 which is disposed horizontally along and transversely of the inner face of the wing 9 of frame 7 and has openings 19 therein in register with the openings 16 of the frame 7.

The outside surface 17b of the flange 17 acts as a plaster stop for the inside plaster facing 20 of the wall along the upper horizontal side and the two vertical sides of the window frame and the bottom outside face of the trough 18 serves a like purpose along the lower horizontal side of the window frame, as best shown in Fig. 2. The inner surface 17c of the flange is adapted to receive thereagainst a frame for a screen 21 which may be mounted therein in any suitable manner, or a secondary window frame may be mounted therein during the winter months.

In the use of such a screen or secondary window, it is desirable to provide a small boss 22 which may be a round headed nail on the lower edge of the face of such screen or secondary window, so that it will bear against the wing 9 of the main window frame and also against the top of the inner wall of the trough 18, as at 18a, and thereby space the lower portion of the frame of the screen or secondary window from both the wing 9 and the upper edge of the inner wall of the trough so that drainage into the trough from the inner surface of the primary window glass 12 will not be interrupted. If a secondary window is mounted within the flange 17 it is also desirable that the frame of said secondary window be of less thickness than the width in transverse cross section of the trough, so that any condensation forming on either side of said secondary window will also drain into the trough.

As will be apparent from the construction, any moisture from condensation or otherwise which forms on the inner face of the glass 12 of the main window or from either face of the glass of a secondary window will flow into the trough 18 and through openings 19 and 16, and thence conveyed by the horizontal plate member 10 to the opening 15 in the frame 7, and thence to the outside of the building.

It will be noted that by this construction, a simplified, convenient and inexpensive frame structure is formed, having all the advantages of the present complicated structures, and which requires no special dies in formation of parts.

The stop 17 may also be utilized on the exterior of the frame if desired as a footing for construction material around the window frame.

Having thus described our invention, what we claim and desire to secure by Letters Patent is:—

1. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, comprising a pair of spaced vertical side members and upper and lower horizontal members, said lower horizontal member having openings therethrough from its inner side to its outer side, a flange member extending outwardly from the inner side of said window frame and along the upper horizontal and the two vertical members of said frame, and a trough member mounted horizontally on and transversely of the inner face of the lower horizontal member of said window frame and having openings therein registering with openings in said lower frame member, the lower ends of the vertical portion of the flange member forming ends for said trough member.

2. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, and comprising a pair of spaced vertical side members connected by upper and lower horizontal members, said members being composed of a lateral plate which connects inner and outer wings extending angularly in opposite directions from the opposite edges of said plate, the said lower member having perforations through the respective wings connected therewith, a trough member mounted horizontally on and transversely of the outer face of the inner wing of the lower horizontal member and having openings therein connecting with said openings in said inner wing of the lower frame member so as to form an outlet from said trough member to said lateral plate and from said plate to the outside of the frame through the openings in the outer wing.

3. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, comprising a pair of spaced vertical side members connected by upper and lower horizontal members, said members being composed of a lateral plate which connects inner and outer wings extending angularly in opposite directions from the opposite edges of said plate, the inner of said wings of the lower horizontal member having perforations therethrough, a trough member mounted horizontally on and transversely of the outer face of the inner wing of the lower horizontal member and having openings therein connecting with said openings in said inner wing of the lower frame member so as to form an outlet from said trough member to said lateral plate, and a flange member extending outwardly from the face side of said window frame and along the upper horizontal and the two vertical members of said frame and adapted at its lower side portions to close the ends of said trough member.

4. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, comprising a pair of spaced vertical side members connected by upper and lower horizontal members, said members being composed of a lateral plate which connects wings extending angularly in opposite directions from the opposite edges of said plate, and a flange member extending outwardly from the face of a wing of the said frame and adapted to form a ledge around the face of said frame against which construction material may be footed around said window frame.

5. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, comprising a pair of spaced vertical side members connected by upper and lower horizontal members, said members being composed of a lateral plate having wings extending angularly in opposite directions from opposite edges of said plate, the respective wings of the lower horizontal member having openings therethrough extending from the upper face of said lateral plate to the extreme faces of the wings, a trough member, having closed ends, mounted longitudinally transverse of the extreme face of the inner wing of the lower horizontal member, and provided with openings connecting with the openings of said inner wing.

6. A window frame construction adapted to be mounted in an opening in a wall structure so as to mount therein a window sash, comprising a pair of spaced vertical side members connected by upper and lower horizontal members, said members being composed of a lateral plate having wings extending angularly in opposite directions from opposite edges of said plate, the respective wings of the lower horizontal member having openings therethrough extending from the upper face of said lateral plate to the extreme faces of the wings, a trough member, having closed ends, mounted longitudinally transverse of the extreme face of the inner wing of the lower horizontal member, provided with openings connecting with the openings of said inner wing, and a flange member extending outwardly from the inner face of the upper and vertical side members and adapted to form a ledge around the inner face of said frame against which construction material may be footed.

In testimony whereof we have signed our names to this specification.

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