

Apr. 10, 1923.

J. HANSON

1,451,021

WATER DRAIN FOR WINDOWS

Filed Apr. 25, 1921

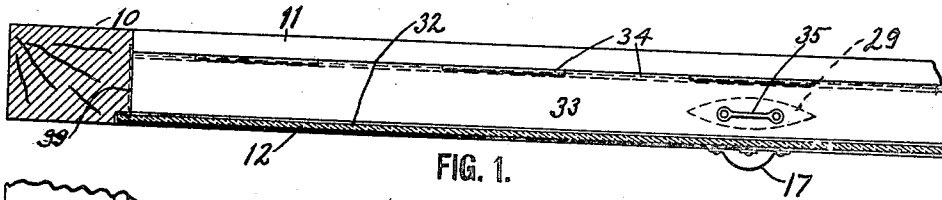


FIG. 1.

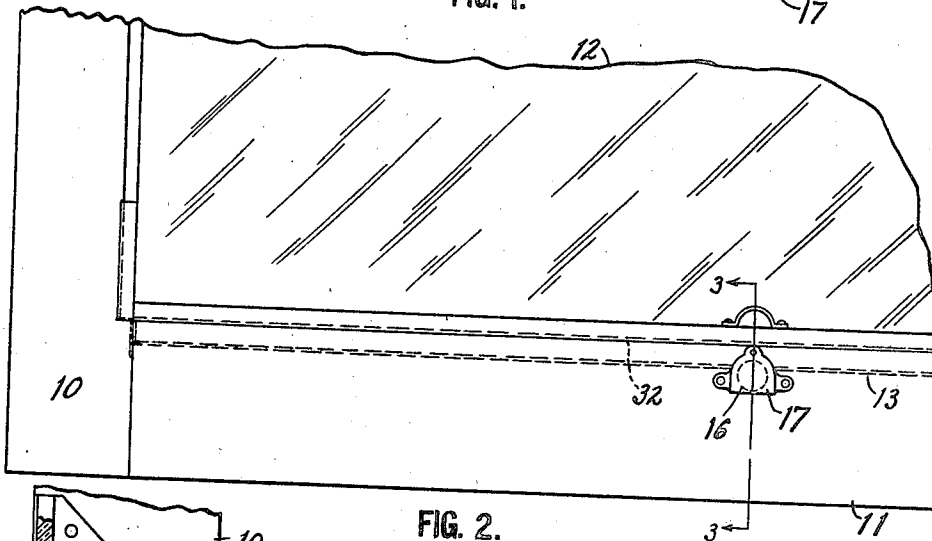


FIG. 2.

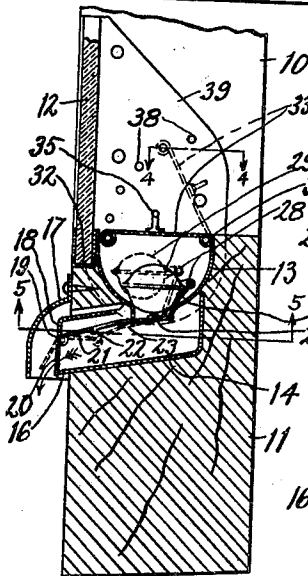


FIG. 3.

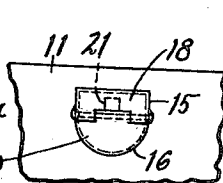


FIG. 6.

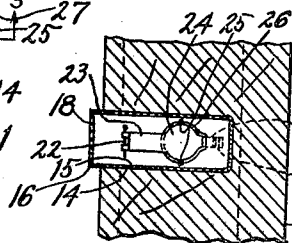


FIG. 5.

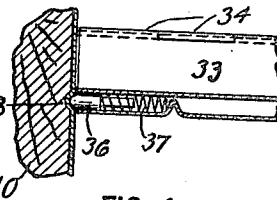


FIG. 4.

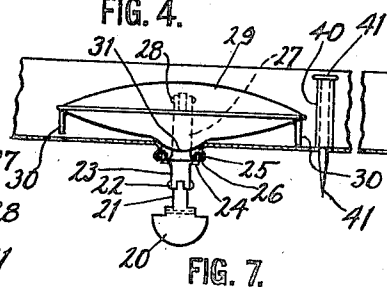


FIG. 7.

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WATER DRAIN FOR WINDOWS.

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To all whom it may concern:

Be it known that I, JOHN HANSON, a subject of the King of Norway, residing at Alderson, in the Province of Alberta, Canada, have invented new and useful Water Drains for Windows, of which the following is a specification.

My invention relates to means for preventing the water that often forms on a window from running down inside the house where it usually does damage to the wall and floor below the window. In carrying out my invention I provide means for gathering and leading the water from the window into a water holder and at intervals thence out of the building.

In the accompanying drawing:

Fig. 1 is a top view of Fig. 2.

Fig. 2 is an outside elevation of a portion of a window provided with my device.

Fig. 3 is a section on line 3—3 in Fig. 2.

Fig. 4 is a section on line 4—4 in Fig. 3.

Fig. 5 is a section on line 5—5 in Fig. 3.

Fig. 6 is a fragmentary view of Fig. 2 with the shield 17 removed.

Fig. 7 is a longitudinal vertical section of the portion of the water holder containing the outlet valve of same.

Referring to the drawing by reference numerals, 10 designates the lower sash of the window, 11 the bottom rail and 12 the glass of said sash. In the bottom rail 11 is formed a recess 13 having one or more (usually only one) downward and outward openings 14 in which is fixed a sheet metal tube 15 terminating in a spout 16 projecting outward beyond the sash bar 11 where it is concealed from view and from the elements by a shield 17.

As shown in Fig. 6 the upper portion of the outlet 16 is permanently closed by a downwardly bent portion 18 of the tube, and therebelow is pivoted at 19 an outer valve 20. This valve has an arm 21 pivoted at 22 (see Figs. 5 and 7) to an arm 23 of a tilting valve 24 trunnioned at 25 in the downward opening 26 in the water holder. Another arm 27, of the valve 24 fits normally in a notch in the seat 26 and is pivoted at 28 to a float 29, which float is preferably oblong and tapered to the ends and may have the ends provided with depending legs 30 of such limited length that they can not prevent the float from settling down with its valve portion 31 upon the valve seat formed of the upper edge of outlet 26, but they will

prevent such tilting of the float as might prevent the proper closing of said valve 31 as an auxiliary to valve 24.

The water holder extends all along the glass 12 and is formed of sheet metal with a groove 32 into which the lower edge of the glass projects and is made water tight, so that all water formed on the inner side of the window will flow down into the holder.

The holder has a cover 33 hinged at 34 and provided with a suitable finger hold 35 by which it may be opened to various inclined positions; and in such positions it is held by a catch 36 slidable in each corner of the cover and having a spring 37 (see Fig. 4) tending to engage it with cavities 38 of a plate 39 secured to the adjacent sash rail 10.

The water holder may be secured in place by various means, one of which I have shown as consisting of vertical metallic tubes like 40 in Fig. 7, two or more of such tubes permanently secured upon the bottom of the holder and project above the water line of same. Through said tube and a hole in the bottom of the holder a plain nail 41 is driven down into the rail 11 without allowing water to leak out.

In the use of the device, the cover 33 is always left sufficiently open to let the water run from the window down into the holder or tank 14, but it may also be further opened if thick ice on the window is melting, or apt to freeze to the cover. It may also be more fully opened for cleaning and repairs of the tank and the valves.

At all times the valves 20 and 24 serve to keep out frost from reaching the water valve 31, while the latter valve is the real valve for closing the water outlet. In warm climates one or both of the valves 20, 24 may be dispensed with and the combined float and valve guided by any suitable means up and down over the valve seat.

Whenever the water gets high enough in the tank to lift the float and valve 31 the latter is thereby opened, as are also the other valves if they are employed, and the tank empties out its contents while the float is on the top of the water. When practically all the water is run out the valve will close automatically and for hours or days will prevent water from running or dripping out where such light flow of it might do damage to the wall by being thrown against it by the wind.

What I claim is:

1. The combination with a window sash of a water tank arranged thereon along the inner side of the window glass so as to receive water running down therefrom, said tank having an outlet extending downward and outward through the lower rail of the sash, a valve normally closing the inner end of said outlet and a float in the tank operatively connected with the valve to open it automatically when the water reaches a predetermined height in the tank and close it when the water has escaped, and a valve operated by the said water valve for closing out chill and frost from the outer end of the outlet.
2. The combination with a window sash of a water tank arranged thereon along the inner side of the window glass so as to receive water running down therefrom, said tank having an outlet extending downward

and outward through the lower rail of the sash, a valve, as 24, normally closing the inner end of said outlet and a float in the tank operatively connected with the valve to open it automatically when the water reaches a predetermined height in the tank and close it when the water has escaped, said tank having apertures in its bottom, nails in said apertures to hold the tank in place and a vertical tube projecting upward around each aperture to prevent water leaking therethrough.

3. In a device of the kind described, a base, a water tank resting on the base and having vertical tubes fixed upon its bottom and extending above the high water level in the tank and means extending down through each tube and secured in the base for holding the tank in place.

In testimony whereof I affix my signature.

JOHN HANSON.