G. L. BODY.

AUTOMATIC WEATHERPROOF SASH.

APPLICATION FILED MAR. 25, 1911.

1,008,113. Patented Nov. 7, 1911.

Fig. 1

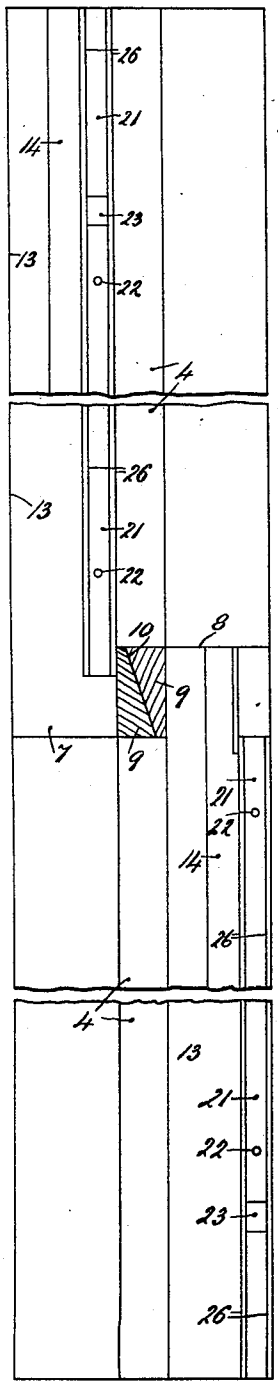


Fig. 2

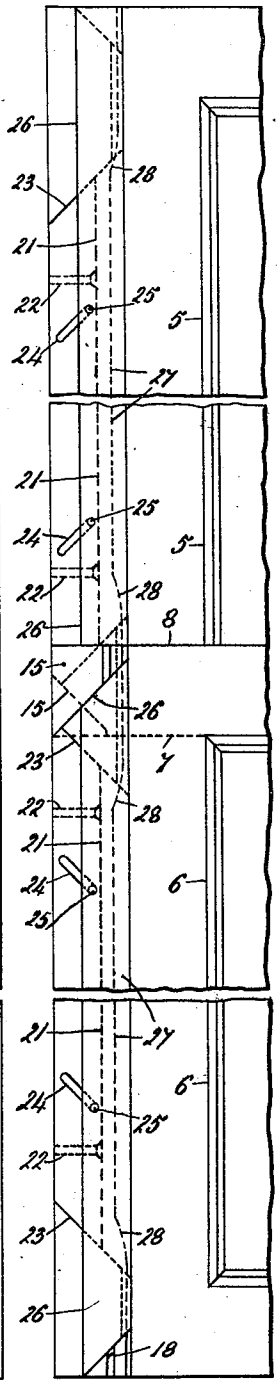


Fig. 3

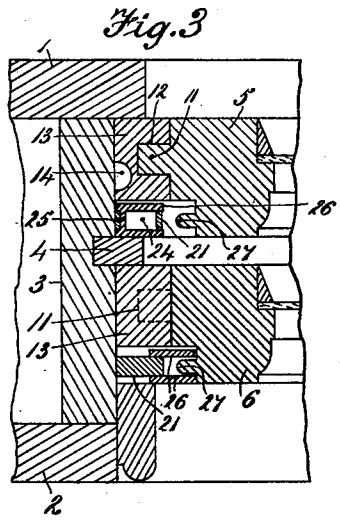


Fig. 4

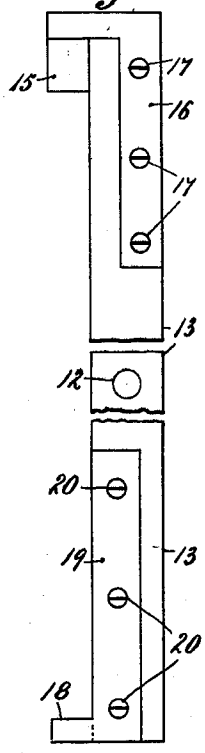
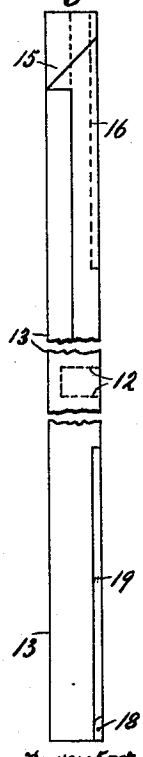


Fig. 5



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UNITED STATES PATENT OFFICE.

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AUTOMATIC WEATHERPROOF SASH.

1,008,113. Specification of Letters Patent. Patented Nov. 7, 1911.

Application filed March 25, 1911. Serial No. 616,828.

To all whom it may concern:

Be it known that I, GEORGE LEONARD BODY, a citizen of the Dominion of Canada, residing at 5 Walnut street north, in the city of Hamilton, in the county of Wentworth, in the Province of Ontario, Dominion of Canada, have invented a certain new and useful Automatic Weatherproof Sash, of which the following is a specification.

This invention relates to sashes, and it has more particular reference to that type or form of window sash which is fitted with a damp or draft excluding means.

The main object of my invention is to provide an improved construction of sash of the above referred to nature which is automatic in action, absolutely weatherproof, and which furthermore remains unaffected by varying climatic conditions.

A further object of my invention is to make the damp or draft excluding means when in use have an interlocking connection as between the sash stile and the window frame.

A still further object of my invention is to construct the sashes so that by raising or lowering they are automatically freed and can be swung about their points of suspension for cleaning, or deflected for ventilating purposes.

The invention consists essentially in the fitting at each vertical side of the window frame of a laterally movable bar which is adapted for actuation by means of projections at the upper and lower ends of the sash side stiles.

The accompanying drawing is in diagrammatic illustration of one convenient form of my invention:—Figure 1, being a broken rear face elevation of one end of a pair of sashes embodying my present improvements. Fig. 2, is a front elevation of the same looking toward the left of Fig. 1. Fig. 3, is a transverse section to an enlarged scale through a part of the window frame and both sashes. Fig. 4, is a broken face view of a side bar hereinafter fully described. Fig. 5, is an edge view of the same looking to the right of the preceding figure. Like reference numerals designate the same or similar parts in the several figures.

According to my invention and as applied to an ordinary double sash window frame as shown 1, 2, are respectively the outside and inside side linings, and 3, is the pulley stile or side frame.

4, is the parting strip, 5, the upper sash side stile and 6, the lower sash side stile.

7, is the meeting rail of the upper sash and 8 the meeting rail of the lower sash, and in order to insure a damp and air proof joint thereat I fit to each said meeting rail a strip 9, which is provided with an inclined face 10, as clearly shown in Fig. 1.

Each side stile 5, 6, is provided approximately mid-way of its length with any suitable pivot device 11, which is fitted into an appropriate socket 12, formed for its reception in an auxiliary side bar or runner slide 13. These auxiliary side bars 13 extend vertically for the full length of each sash side stile, and they have the ordinary sash cords secured into grooves 14, therein in the well known way, and it will be readily seen that by lowering the upper sash or raising the lower one away from the top and bottom lateral stop beads—not shown—said sashes may be swung outwardly or inwardly about the pivots 11, for purposes of cleaning or ventilation. Each side bar 13, is provided at one end with an inclined projection 15, which may conveniently be a metal block held thereto by means of a flange 16, secured to said bar 13, by wood screws 17, 17, Figs. 4, and 5; and at the other end with a toothed projection 18, formed integral with a flat plate 19, similarly fixed in place by wood screws 20, 20. The projections 15, and 18, serve for the purpose hereafter explained. The side bars 13, 13, are of a less width than the pulley stiles 5, 6, as will be clearly understood from Fig. 3.

Preferably on the inner side of each pulley stile and adjacent to the aforesaid side bars 13, 13, I securely fix a length of hard wood 21,—for example—by means of wood screws or the like passing through holes 22, therein into the aforesaid pulley stile 3. This length of hard wood 21, is inclined at each end 23, at an angle of about forty five degrees, and it is furnished with two or more similarly inclined slots 24, 24 through which pass pins 25, 25, the free ends whereof are securely fixed to thin strips 26, 26, the ends 23, and slots 24, are inclined in one direction,—downwardly—, as regards the lower sash, and in a reverse direction—upwardly—, as regards the upper sash as will be clearly seen on an inspection of Fig. 2.

27, is a tongue fixed on or formed integral with the side stile of each sash 5, 6, for

coöperation with the strips 26, 26, when moved thereover, and said tongues 27, may be chamfered-off, or cut down on their free ends 28, to permit the easy passage thereover of the distance pieces joining together the free ends of the aforesaid strips 26, 26.

In use and assuming that the lower sash is raised, the hollow weather bar constituted by the connected strips 26, 26, will lie flat against the pulley stile 3. When said sash is lowered the inclined projection 15, will be forced against the similarly inclined upper end of the hollow weather bar aforesaid and thereby move said bar away from the pulley stile, its course being guided and controlled by the pins 25, 25, in the slots 24, 24, until said bar is jammed against the sash side stile 6, with the tongue 27, between the thin strips, as will be clearly understood on an examination of the lower half of Fig. 3. In raising the said sash the toothed projection 18, will be forced over the lower inclined end of the hollow weather bar and thereby drive same flat against the adjacent pulley stile. The operation of the upper hollow weather bar will be in a reverse direction and clearly understood without explicit description.

Obviously the hollow weather bars may be made of wood sheathed with metal at all the wearing places, or entirely from metal, and it will be readily seen that with a window having my improvements applied at both vertical sides of the sashes, either outside or inside, a perfectly certain weather proof closure is insured in every respect. Furthermore warping of the sashes or window frame does not affect my device seeing that the hollow strips will be outwardly jammed just the same, while rattling is effectively prevented.

From the foregoing specification it will be readily recognized that I have provided an extremely effective device for the purposes specified, and I do not limit myself in any respect to the specific details of construction disclosed, many alterations and various other combinations thereof being possible without in any way departing from the field and scope of the invention, and it is intended to include all such within this application wherein only one convenient embodiment has been described and shown.

Having set forth my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. The combination with a window frame and sashes, of vertically disposed bars having inclined ends and similarly inclined slots therein, hollow registering bars constituted by thin strips distance pieces and pins passing through the aforesaid inclined slots, side bars pivotally connected to the sash side stiles, an inclined projection formed at one end of each said side bar and a toothed projection at the other for contact with and the operation of the aforesaid hollow bars, and tongues on the sash side stiles for coöperation with the hollow bars when moved thereover, substantially as described for the purpose specified.

2. The combination with a window frame and sashes, of vertically disposed bars having inclined ends and similarly inclined slots therein, hollow inter-registering bars constituted by thin strips distance pieces and pins passing through the aforesaid inclined slots, side bars pivotally connected to the sash side stiles, an inclined block projection secured to one end of each said side bar by means of a flange and screws, a toothed projection secured to the other end of each side bar by means of a flange plate and screws, said projections being adapted to contact with and operate the aforesaid hollow bars, and tongues formed on the side stiles for interlocking coöperation with the aforesaid hollow bars, substantially as shown for the purpose specified.

Signed at Hamilton, Ontario, Canada, this 22nd day of March, 1911.

GEORGE LEONARD BODY.

In the presence of—
ALFRED T. BRATTON,
GERTIE P. NICHOLSON.