J. B. GLOWACKI.

WEATHER AND DUST PROOFING DEVICE.

APPLICATION FILED NOV. 29, 1912.

1,108,986. Patented Sept. 1, 1914.

2 SHEETS—SHEET 1.

Fig. 1

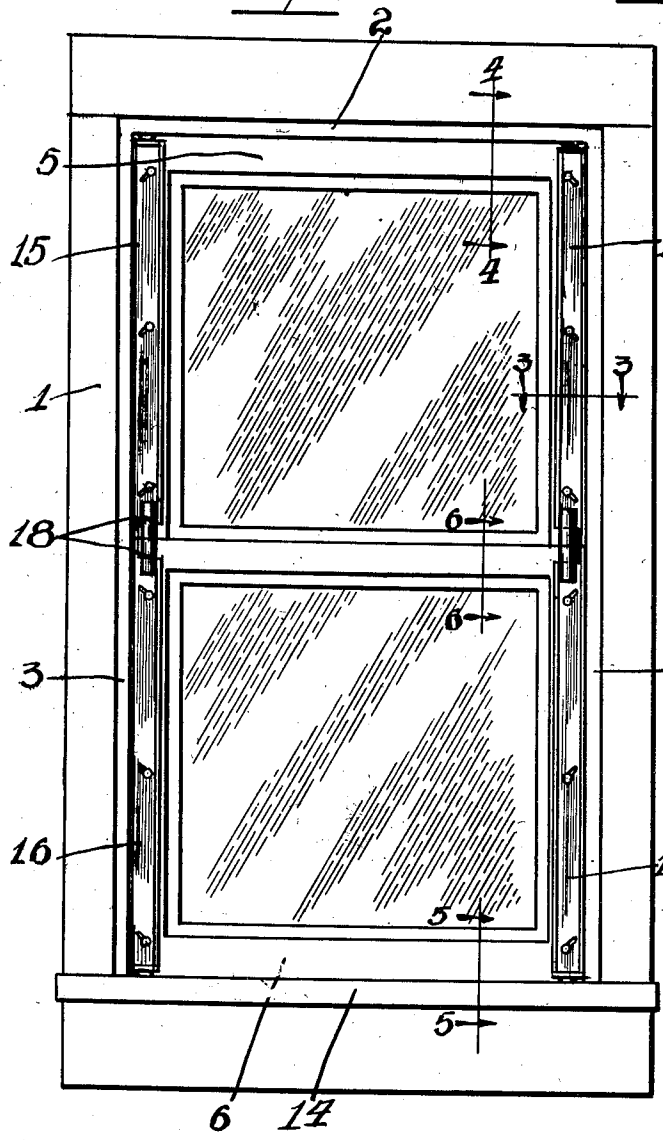


Fig. 4

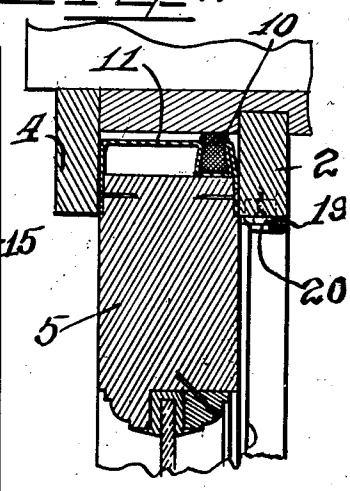
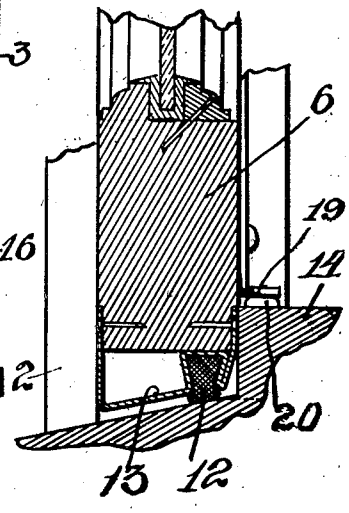


Fig. 5



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2

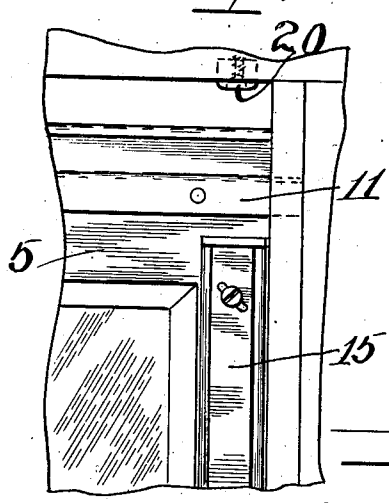


Fig. 6

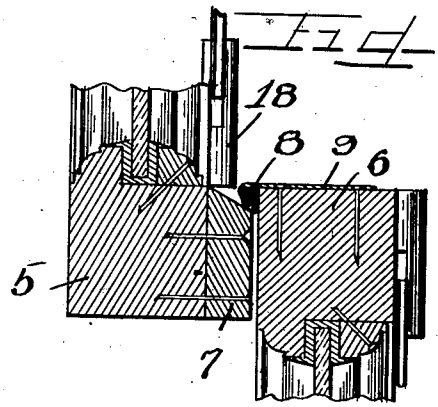
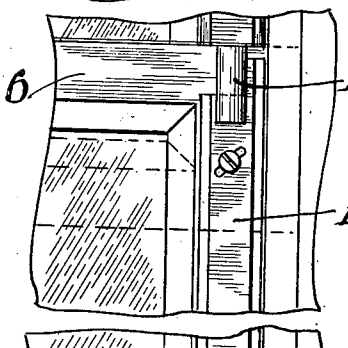


Fig. 3



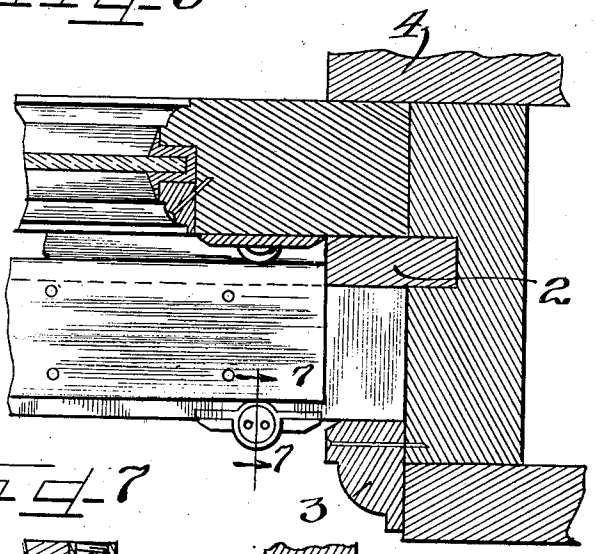


Fig. 7

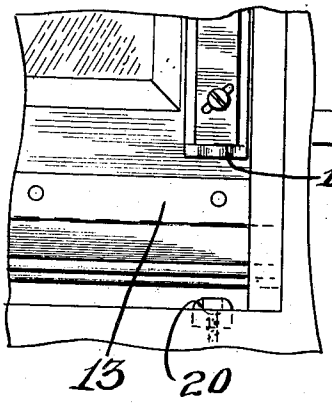
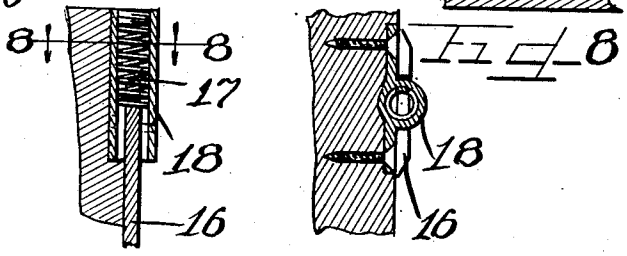


Fig. 8



Witnesses

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WEATHER AND DUST PROOFING DEVICE.

1,108,986. Specification of Letters Patent. Patented Sept. 1, 1914.

Application filed November 29, 1912. Serial No. 734,064.

To all whom it may concern:

Be it known that I, JOHN B. GLOWACKI, a citizen of the United States, and a resident of the city of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Weather and Dust Proofing Devices; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the numbers of reference marked thereon, which form a part of this specification.

This invention relates more particularly to that class of weather and dust proofing devices adapted for use in connection with windows, to seal the joint between the sash and the frame when the window is closed. In such constructions usually the weather-strip or weatherproofing device is rigidly secured to the frame to slidably engage the sash or to the sash to slide upon the frame and in either construction a short period of use usually occasions sufficient wear to render the device practically useless for the purpose for which intended.

It is an object of this invention to afford upon the movable sash or the like, a weather proofing device movable relatively thereto, and impelled into operative position by the closing of the window.

It is also an object of the invention to afford weatherproofing means carried slidably on the sides of the sash, and acting upon the closing of the sash to seal the joints between the sash and the frame at the sides thereof, and resilient weatherstrips carried at the ends of the sash to seal the joints between the same and the frame and also between the sash.

Other objects of the invention are set forth in the specification.

The invention (in a preferred form) is illustrated in the drawings, and hereinafter more fully described.

In the drawings: Figure 1 is an inner front elevation of a window frame with slidable sash therein, equipped with weatherproofing means embodying my invention. Fig. 2 is an enlarged fragmentary detail view of the same. Fig. 3 is an enlarged section on line 3 of Fig. 1. Fig. 4 is an enlarged section on line 4 of Fig. 1. Fig. 5 is an enlarged section on line 5 of Fig. 1. Fig. 6 is an enlarged section on line 6 of Fig. 1. Fig. 7 is a fragmentary section on line 7 of Fig. 3. Fig. 8 is a fragmentary section on line 8 of Fig. 7.

As shown in the drawings: 1, indicates the window frame as a whole, constructed as usual or in any preferred manner; that is to say, provided with the usual head jamb and stop and side jambs and sill, and provided with parting strips 2, and stops 3. Between the blind stop 4, and parting strip 2, the upper sash 5 slides as usual, and between said parting strip 2, and inner stop 3, the lower sash 6, is slidably supported. As shown, a parting rail or strip 7, having a thickness approximately equal to the thickness of the parting stop 2, is secured on the inner face of the lower rail of the upper sash 5, provided with a downwardly inclined face to shed the water of condensation from the inner side of the upper sash downwardly, and to discharge between the same and the lower sash, as shown in Fig. 6. The joint between said parting rail 7, and the inner or lower sash, is closed by a resilient weatherstrip 8, such as rubber, which is engaged in place by means of a strip 9, of sheet metal, the edge of which is flanged over and inwardly around said resilient strip 8, to engage the same removably in place, and in position to bear upon the inner edge of said parting rail at the top thereof when both sashes are closed.

The upper sash is provided along its top rail with a resilient weatherstrip 10, which bears against the head jamb of the window frame when the sash is closed, as shown in Fig. 4. This, as shown, is engaged in place by a formed strip 11, of metal, which is shaped to engage on the outer and inner faces of the sash along the top thereof, and to afford a retaining seat for said strip, so that when the sash is closed the joint at the top of the sash and between the same and the head jamb is effectively sealed. As shown, the retaining member 11, is inclined inwardly at the front edge to wedgingly engage between the parting strip 2, and the blind stop 4. In a similar manner a resilient weatherstrip 12, corresponding with the weatherstrip 10, before described, is engaged in a suitable seat therefor in a sheet metal retaining strip 13, formed to engage along the outer and inner faces of the lower sash along the bottom rail, as shown in Fig. 5, said retaining member being inclined toward said resilient strip 12, at the lower edge to wedgingly engage the lower edge of

the sash between the subsill 14, and the parting stop 2.

Secured on the upper and on the lower sash on each side thereof, are movable weatherstrips 15 and 16, respectively, which are carried on the sashes at all times and which are automatically impelled outwardly to seal the joint between the sides of the sashes and the frame when the sashes are closed. As shown, each of said weatherstrips comprises a metallic or other suitable strip, having a straight edge adjacent the parting strip or stop, and provided with diagonally arranged parallel slots in each strip to receive the attaching screws or other means, whereby said strips are movably engaged upon the sash. Said movable weatherstrips 15, secured on the upper sash, are normally supported from engagement with the frame or stop by means of a spring 17, secured in a suitable casing 18. The lower end of said movable weatherstrips are cut away transversely at the lower ends from the inner edge to near the outer to afford a downwardly directed shoulder to bear upon said springs in said casings and, as shown, an outwardly turned lip or projection 19, is provided on the upper end of each of said movable weatherstrips adapted to impinge against a resilient (or other) projection 20, secured in the parting strip, one at each side the sash and in position to be engaged by said outwardly turned flange or projection 19, when the upper sash is closed, and acting thereby to project said movable weatherstrip downwardly and outwardly against the tension of the springs.

The construction of the movable weatherstrips 16, for the lower sash, is identical with that before described, except that the casing 18, containing the springs 17, is secured at the upper rail of the lower sash and the outwardly turned lips 19, on said movable weatherstrip are engaged by projections or buttons 20, secured on the subsill 14, or directly on said sill, as preferred, acting to project said movable weatherstrips upwardly and outwardly into engagement with the stop 3. Preferably, the inner edge of the parting strip 2, and the inner edge of the stop 3, is slightly chamfered or cut away to afford a recess to receive the bevel or thinned edge wedgingly thereinto when the sashes are closed, said movable weatherstrips thus serving not only to seal on said stops, but also acting to wedgingly engage between the sash and the said stops to force the sash outwardly and against the blind stop and the parting strip respectively, thus sealing the joint both at the outer side and at the inner side of the sash.

Numerous details of the construction may be varied, and it is to be understood that I have shown but a preferred embodiment of my invention, and that I do not purpose limiting the patent granted on this application otherwise than necessitated by the prior art.

I claim as my invention:

1. The combination with a window frame and a sliding sash movable between the stops thereon, of weather stripping mechanism comprising longitudinally movable weatherstrip members mounted on the side rails of the sash, a slotted cylinder rigidly secured on said sash, a spring contained therein and normally bearing against one end of said movable member, pins securing said movable member engaging through inclined slots therein, and fixed in the window sash rail, and an outwardly turned projection on said movable member adapted to contact the frame when the sash is closed to project said movable member in wedging relation between the window sash and a stop against the compression of said spring to seal the sash in the window frame.

2. The combination with a window frame having a sash slidable between stops thereon, of weather stripping mechanism comprising a weatherstrip member having inclined slots therein, pins engaging through said slots and into the window sash to movably connect said member and said sash together, a cylinder rigidly secured on the window sash, and having slots extending longitudinally thereof, a spring contained within said cylinder and normally bearing against one end of said member engaging in said slot in said cylinder, and means on the lower end of said member adapted to contact the window frame when the sash is closed to project said member between the sash and a stop against the stress of said spring to seal the sash in the window frame.

3. The combination with a window frame and a sash slidable therein, of weather stripping mechanism comprising a movable weather strip carried on the side of the sash adjacent the frame and having a beveled edge adapted to wedgingly engage between the sash and the frame, a projection on said weatherstrip adapted to engage a fixed part of the frame to project said strip outwardly into wedging engagement between the sash and the frame when the sash is closed, pins engaging through inclined slots in said weather stripping element to connect the same with said sash, said pin and slot connection causing a diagonal movement of said weatherstrip when the same is moved relative the sash, and a slotted cylinder secured on the sash with one end of said weatherstrip slidably engaging therein permitting diagonal movement of said weatherstrip element to take place in said cylinder.

4. In a device of the class described upper and lower sliding sashes, diagonally movable weather strips supported on each side

of each sash, a projection on each adapted to engage a fixed part adjacent thereto when the sash is closed to project the same outwardly to seal the joint between the sash and the stops, springs engaging said movable weather strips and acting to shift the same inwardly when the respective sashes are moved in opening, and slotted cylinders mounted on the meeting rail of each sash to inclose said springs, the extremities of said weather strips engaging in said slots and guided in their movement thereby.

In testimony whereof I have hereunto subscribed my name in the presence of two subscribing witnesses.

JOHN B. GLOWACKI.

Witnesses:
CHARLES W. HILLS, Jr.,
LAWRENCE REIBSTEIN.