No. 637,623. Patented Nov. 21, 1899.

J. M. LANE.

WIND GUARD FOR WINDOWS OR DOORS.

(Application filed Feb. 23, 1899.)

(No Model.)

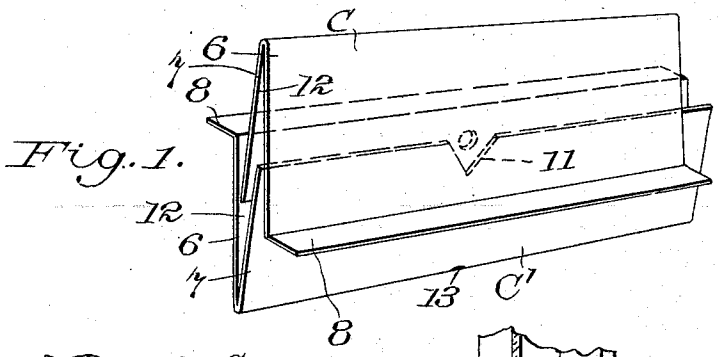


Fig. 1.

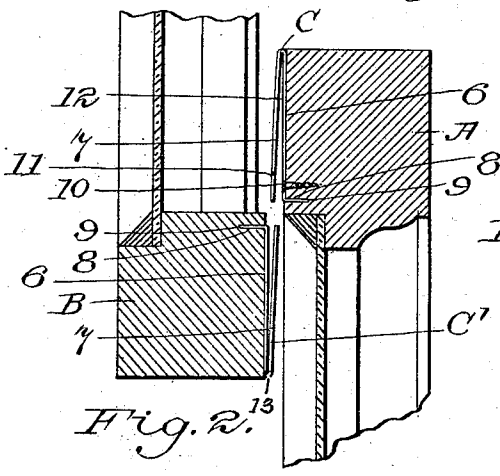


Fig. 2.

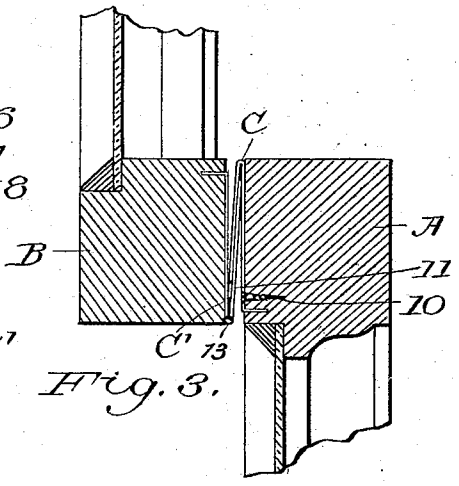


Fig. 3.

Fig. 4

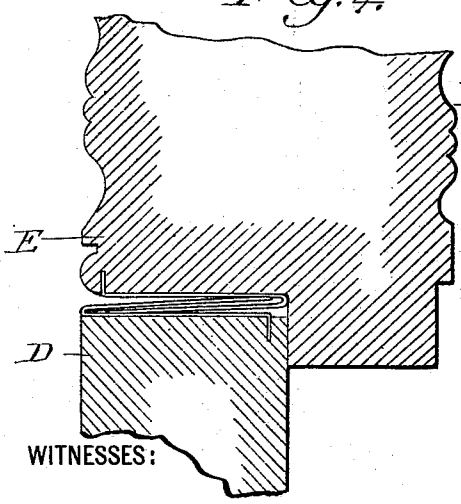
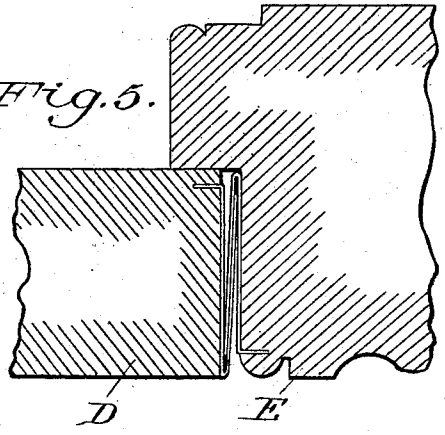


Fig. 5.



WITNESSES:

B. A. Ittner.

W. H. Dumphrey.

INVENTOR

John M. Lane

BY Knight Bros.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN M. LANE, OF OVID, MICHIGAN; MARY A. BOEREM, ADMINISTRATRIX OF SAID LANE, DECEASED, ASSIGNORS, BY MESNE ASSIGNMENTS, TO CHARLES K. SCHOONOVER AND JOHN R. SCHOONOVER, OF NEW YORK, N. Y.

WIND-GUARD FOR WINDOWS OR DOORS.

SPECIFICATION forming part of Letters Patent No. 637,623, dated November 21, 1899.

Application filed February 23, 1899. Serial No. 706,530. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. LANE, a citizen of the United States, and a resident of Ovid, in the county of Clinton and State of Michigan, have invented a new and useful Improvement in Wind-Guards for Windows or Doors, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a sectional perspective view of the two members of my improved wind-guard detached and partly separated. Fig. 2 is a vertical section of the meeting-rails of a window with my invention applied, showing the two members separated, as when the window is partly open. Fig. 3 is a vertical section thereof, showing the two members in contact, as when the window is closed. Figs. 4 and 5 are respectively a vertical section of the top part of a door and its frame and a horizontal section of the side portion thereof, showing the application of the invention to doors.

Many attempts have been made to provide a secure sheet-metal wind-guard for the meeting-rails of window-sash; but as heretofore constructed difficulty is found in making them wind and dust proof, and also in providing for the discharge to the outside of the window of water of condensation, which, especially in cold weather and when the inside air is heavily charged with vapor, collects on the inside of the glass and may find its way to the outside through the crack between the meeting-rails if the window-sash are not tightly fitted or provided with wind-guards. To obviate these difficulties and provide a window and door guard which is securely wind and dust proof, I prepare a pair of sheet-metal plates or strips bent in corresponding or similar V shape and adapted to be applied to the adjacent parts of the meeting-rails of window-sash and the meeting parts of the top and free side of a door and its frame in such position that when the window or door is closed the two members of the guard or protector will not merely overlap, but, by reason of the V shape of the bent strips causing their projecting or free sides to lie in planes oblique to the line of movement, will be caused to engage with tight contact and with elastic pressure by reason of the resilience of the metal.

Referring to Figs. 2 and 3 of the drawings, A and B represent the meeting-rails of a window, A being the top rail of the lower sash, and B the bottom rail of the upper sash. To the inner or meeting faces of these meeting-rails are applied the respective members C and C′ of my improved wind and dust guard, the particular construction of which is further illustrated in Fig. 1. Each of these members is formed of a strip of sheet metal bent in V shape—that is to say, at an acute angle—forming a back 6 for attachment to the rail, an obliquely-projecting front or free side 7, and a horizontal flange 8, turned outward at approximately right angles from the edge of the back 6 for insertion in a groove 9 prepared for it in the face of the rail to prevent the possibility of the strip shifting on the rail, to which it is attached by nails or screws 10. Opposite the nail or screw holes in the back 6 of the plate holes or notches 11 are formed in the free side 7 to admit the tool by which the nails or screws are driven. The acute angle in the strip between the back 6 and free side 7 is shown at 12. In the angle or bottom 12 of the lower member C′, which is applied to the bottom rail B of the upper sash, I provide a hole 13 to permit the escape to the outside of any water of condensation, which, running down the inner surface of the glass, will be conducted by the side 7 of the upper strip C into the gutter formed by the lower bent strip C′.

From the above description and from the form and juxtaposition of the parts shown in Figs. 1, 2, and 3 it will be apparent that the closing of the window will bring the members C and C′ into contact by vertical movement on a line oblique to the meeting surfaces of the two members, and hence that they will be tightly pressed together, yielding easily and as far as necessary by reason of the resilience of the sheet metal, which will hold the parts in close contact with elastic pressure, and forming tight joints at the two points where the free edge of one plate comes in contact with the fixed back of the other plate. This

effect distinguishes my device from any in which the projecting edges of metal strips simply overlap and adapts it to serve as a perfectly effective wind and dust guard. The same effect is produced in the application of the device to the top and free side, respectively, of a door D and its frame E, as illustrated in Figs. 4 and 5, which application of the invention will be clearly understood without further description.

My improved elastic wind and dust guard effectually prevents rattling of window-sash, and as the plates do not extend above the top of either of the meeting-rails they do not interfere with the application of sash-fasteners of usual forms. My improved wind and dust guard is also valuable as a complete safeguard against one of the most common modes practiced by burglars in effecting entrance by insertion of a thin blade between the meeting-rails of a window-sash and therewith forcing back the sash-lock.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination of the two V-shaped bent plates C and C′ each provided with an outturned flange 8, secured in a groove 9, in the vertical face of the rail to which it is attached, and having free edges projecting obliquely outward and, when the window or door is closed, mutually engaging with elastic pressure of the free edge of each strip against the inclined face of the other, as described.

2. The combination of the two engaging V-shaped bent plates C and C′ secured to the respective meeting-rails of window and with an aperture 13 in the bottom of the lower member for the external discharge of water from the interior of the window, as explained.

3. A wind-guard for windows and doors comprising a pair of V-shaped bent plates, each of said plates being folded at an acute angle, and formed with an obliquely-projecting free front and with a back having an outturned flange bent at an approximately right angle to the back; the free fronts of the plates being adapted to mutually engage with each other with yielding pressure, so as to bear against each other and draw the members, to which they are applied, together, and thus prevent rattling; substantially as described.

4. The combination of two rails, each rail having a flange-groove in the face thereof, and a pair of V-shaped bent plates, each of said plates being folded at an acute angle, and formed with an obliquely-projecting free front, and with a back having an outturned flange bent at an approximately right angle to the back, and adapted to fit in the flange-grooves, the free fronts of the plates being adapted to mutually engage with each other with yielding pressure, so as to bear against each other and draw the members, to which they are applied, together, and thus prevent rattling; substantially as described.

JOHN M. LANE.

Witnesses:
GEO. B. FAXAN,
H. M. HOYT.