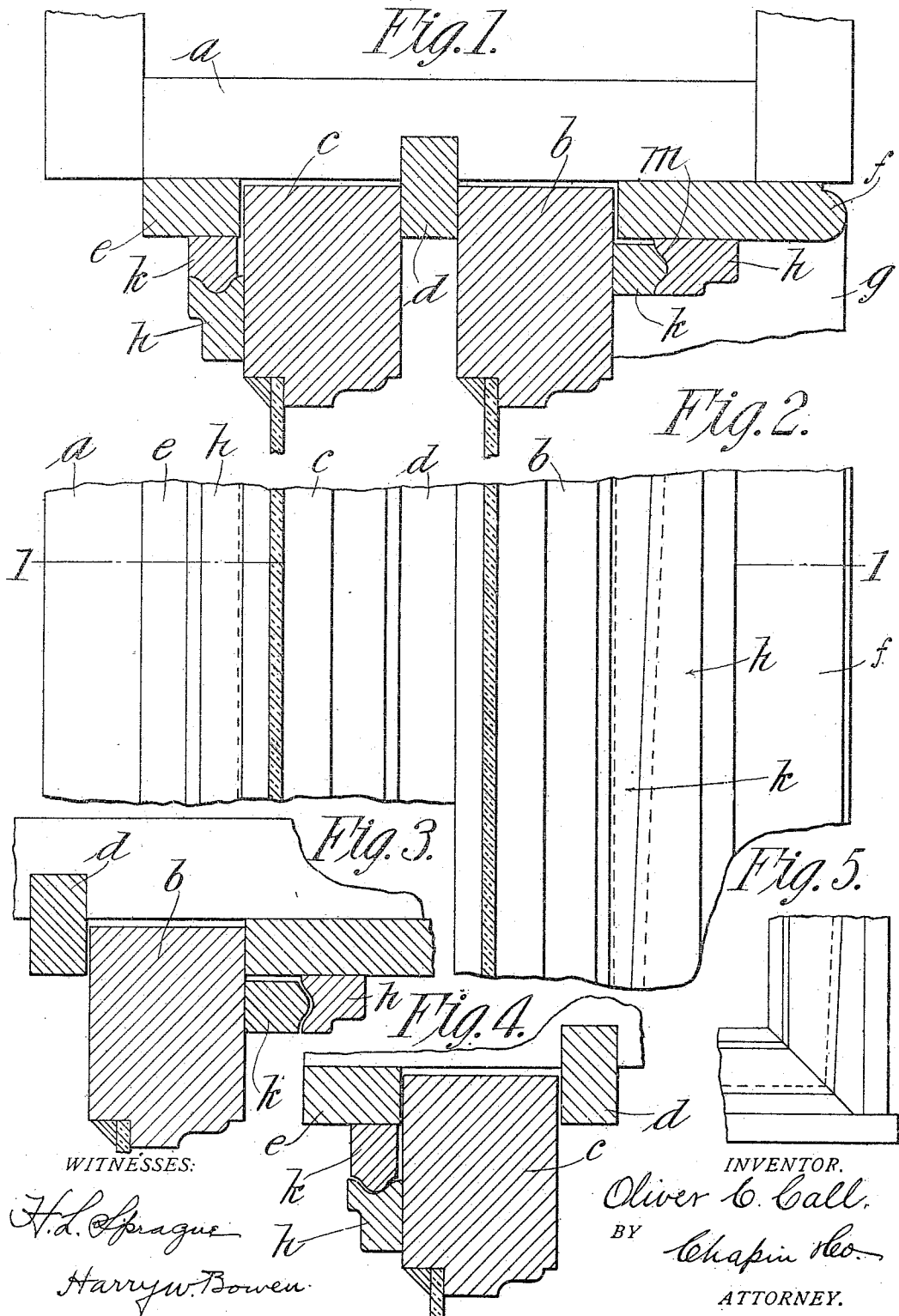


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DUST AND AIR GUARD FOR WINDOWS.
APPLICATION FILED NOV. 18, 1908.

957,493.

Patented May 10, 1910.



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DUST AND AIR GUARD FOR WINDOWS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, OLIVER C. CALL, a citizen of the United States of America, residing at Springfield, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Dust and Air Guards for Windows, of which the following is a specification.

This invention relates to an improvement in dust and air guards for windows, the object of the invention being to provide an improved construction of the character referred to comprising a dust and air-guard embodying means to jam the window frame either laterally or transversely, or in both directions, to prevent rattling and to enhance the efficiency of the air-guard proper.

The invention is clearly illustrated in the accompanying drawings, in which,—

Figure 1 is a cross sectional view showing the upper and lower sash of a window and the dust and air-guard strips applied thereto in different relation one to the other, on the upper and the lower sash. The plane of the section is on line 1—1, Fig. 2. Fig. 2 is an elevation of part of a sash and window casing showing the relation of the dust and air-guard strips to each other and to the casing. Fig. 3 is a transverse section similar to Fig. 1 but showing the relation of the dust and air-guard strips when the lower sash, for example, is partly raised. Fig. 4 is a similar sectional view showing the relation of the dust and air-guard strips as they come into operative contact whereby the sash may be jammed. Fig. 5 is an elevation (on a much reduced scale) of a corner of a sash and its casing showing the application of the dust and air-guard strips to the stool of the casing, as well as the sides thereof.

Referring to these drawings, *a* indicates a window-frame; *b* and *c* the lower and upper sashes respectively,—*d* being the stop between them; *e* the outer portion of the casing, and *f* that part of the casing located within the room, the stool of the casing being indicated by *g*.

The strips which constitute the dust and air-guards are lettered respectively *h* and *k* on the drawings. On the lower sash *b*, of Fig. 1, the strip *k* is indicated as being applied directly to the sash, and the strip *h* applied to the casing.

By referring to Fig. 2, it will be observed that the strip *k* is tapered throughout the entire length thereof, the widest portion

thereof being that at the upper end of the lower sash; and the strip *h* has its edge which lies contiguous to the tapered side of the strip *k* similarly tapered, the meeting sides of these two strips being provided with a tongue and groove engagement, as indicated at *m*, the preferred form of which, viewed in cross section, is an ogee curve, the function of which will be referred to later on.

Referring now to the strips *h* and *k* constituting the dust and air-guards which are applied to the upper sash *c*, it will be observed that the strip *k* is applied to the part *e* of the casing instead of to the sash, as heretofore described, and the strip *h* is applied to the sash, this being a mere reversal of the position of the like strips as applied to the lower sash; and, furthermore, the taper of the strips would be reversed to the end that when the sash *c* is drawn downward, the meeting edges of these strips would be free and would separate one from the other. This difference in the location of the strips *k* and *h* on the sashes *c* and *b* is for the purpose of showing that whichever way they may be applied, they will serve to jam the sash either in a plane parallel with the sash or at right angles thereto. This double thrusting effect is due to the fact that movement in one of these directions will be imparted to the sash by means of the contact of the beveled sides of the strips *h* and *k*, when the sash *b* is lowered or the sash *c* is raised. When the reverse movement of these parts takes place, the strip secured to the casing *f* remains stationary and the strip secured to the sash moves with the latter. Therefore, as soon as this sash is raised a separation will take place between the contiguous sides of these two strips thus freeing the sash. If the sash be brought down again, it will be perfectly free to play between the edge of its casing *f* and the stop *d* until such time during its movement as the engagement takes place between the tongue and groove portions of the beveled sides of the strips, and when such engagement does take place, and the sash has any play whatever, transversely thereof, (as shown for example in Fig. 4) between the stop *d* and the part *e* of the casing, a continued movement of the sash downward, and a consequently closer fit of the tongued and grooved surfaces, the sash *c* would be moved back toward the stop *d*,

if the strips *h* and *k* have been properly placed. In said Fig. 4, the sash *c* is shown not in contact with the stop *d*, and the tongued and grooved portions of the strips *h* and *k* are shown as having but just come into contact one with the other on the inner edge of the tongue. Further movement upward, however, of this sash would tend to force the strip having the tongue thereon firmly against the grooved strip, owing to the taper of these two elements; and this, while serving to thrust the sash toward the stop *d* simultaneously because of the taper of the strips, would tend to thrust it at the same time in a direction at right angles thereto.

Fig. 3 shows the position of the strips *h* and *k* before the tongued and grooved edges thereof have come in contact, and therefore the sash is shown separated from the stop *d* in this view.

Fig. 5 shows, on a much reduced scale, the right-hand lower corner of the lower sash, which shows that in addition to the location of the strips *h* and *k*, along the sides of the sash, they may also extend across the bottom thereof, if desired, in which case they would need be made in exactly the same manner, except that their meeting edges would be parallel instead of tapered.

It will therefore be clear from the above description that a two-fold object is accomplished by the dust and air-guard strips applied to the upper and lower sash, as described herein, in that the tapered meeting edges of the strips may be used to effect the adjustment of the sash in the plane of the latter, the tongue and groove engagement between these beveled meeting edges serving also, by the effort of the tongued piece to seat itself centrally with the grooved piece, to impart movement to the sash in a direction at right angles to that imparted thereto by the beveled meeting edges of the two strips. Furthermore, the fact that the two beveled strips have this tongued and grooved engagement will make them more effectively dust and air-tight than if their meeting edges were plane surfaces.

While the term "tongue and groove"

has been employed to designate the engagement between the beveled edges of the dust and air-strips *h* and *k*, it has been used for want of a better term, and is not intended to include any form of tongue and groove which is not substantially of ogee form in cross section, that is such form as will permit slight movement of the tongued or grooved strip in a direction at right angles to said tongue or groove. If the tongue and groove had parallel sides, such movement would not be possible, but if the sides of the tongue and groove have substantially the ogee form in section, shown and described herein, the movement of these parts, one relative to the other in a direction transverse to their beveled edges, may be effected by their peculiar cross sectional contour.

What I claim, is:—

1. A dust and air-guard for windows comprising a fixed strip secured to a window-casing or the like, a strip secured to the sash, the contiguous sides of these strips being oppositely tapered and having a bearing one against the other when the sash is in a closed position, the tapered sides of said strips having a tongue and groove engagement one with the other, whereby the sash will be moved transversely in its own plane when the tapered strips are brought together into operative contact.

2. A dust and air-guard for windows comprising a fixed strip secured to a window-casing or the like, a strip secured to the sash, the contiguous sides of these strips being oppositely tapered and having a bearing one against the other when the sash is in a closed position, to move the sash in the direction of the plane thereof, the tapered sides of said strips having also a positive engagement one with the other to effect the transverse movement of the sash when the parts are brought into operative contact.

OLIVER C. CALL.

Witnesses:

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