(No Model.)

W. H. DAWSON.

CAR WINDOW.

No. 387,403. Patented Aug. 7, 1888.

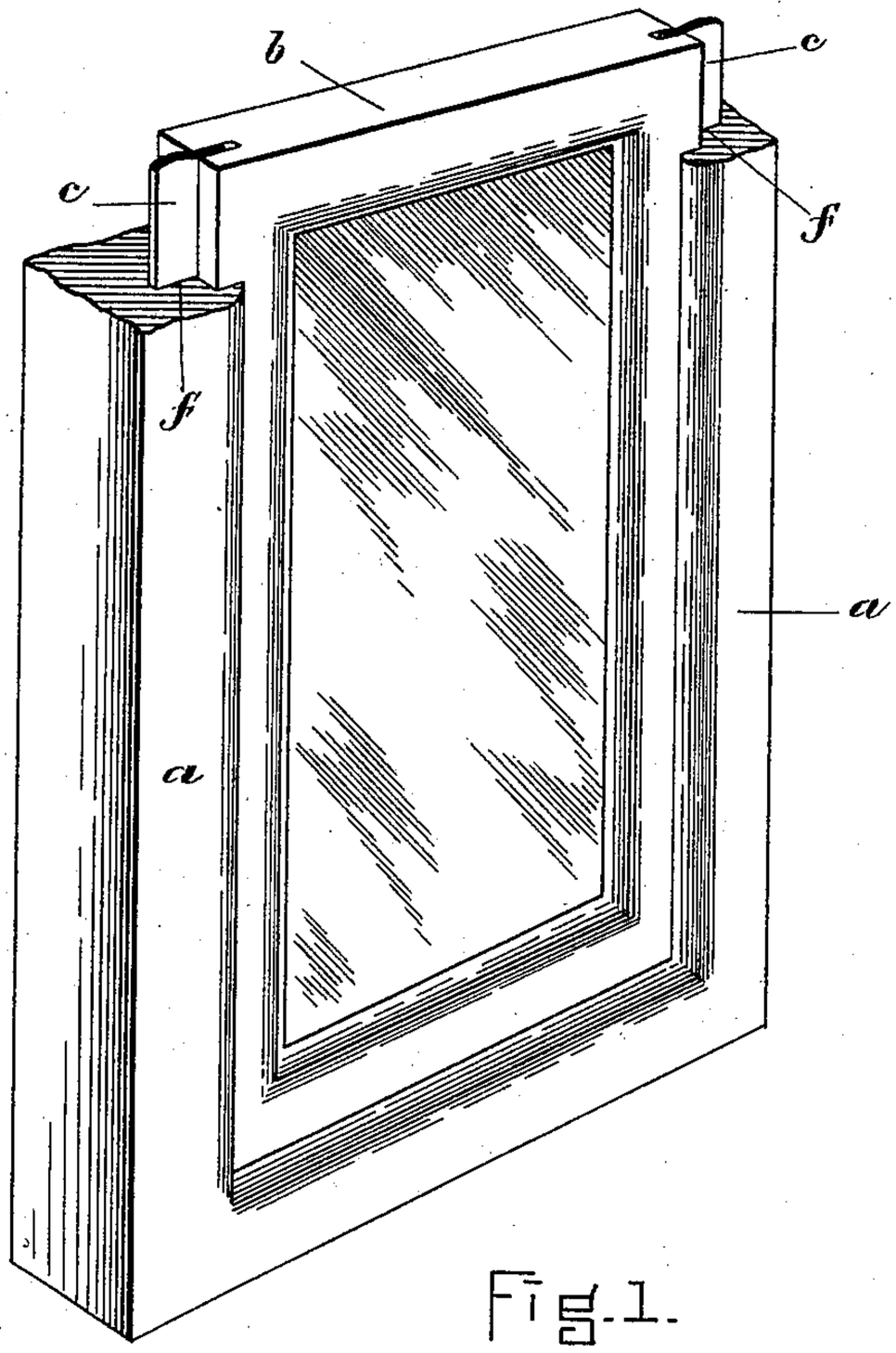

Fig. 1.

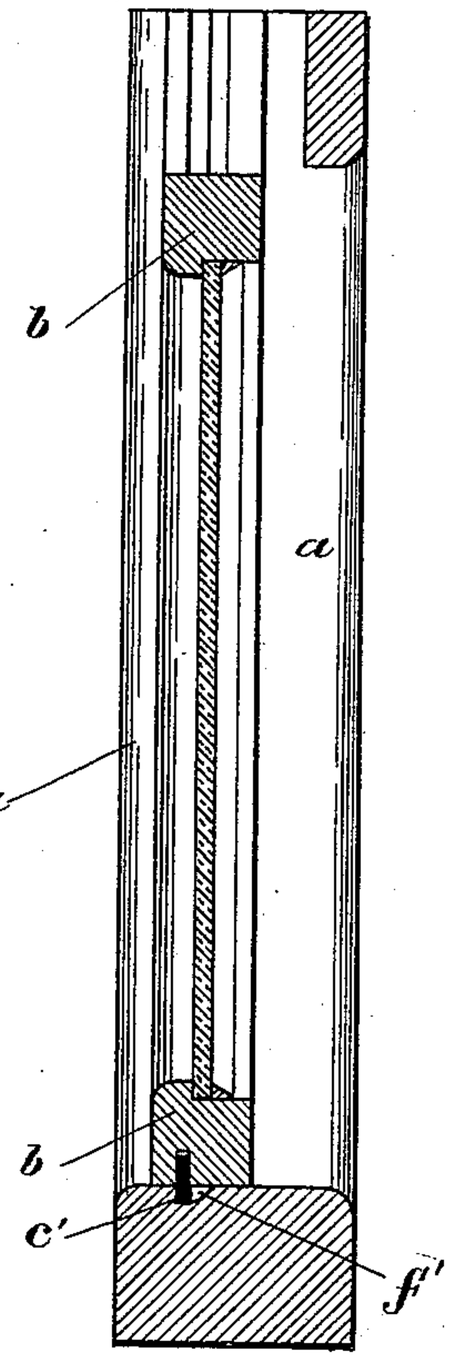

Fig. 2.

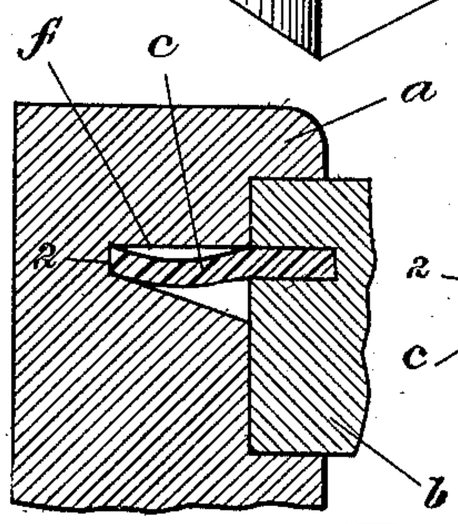

Fig. 4.

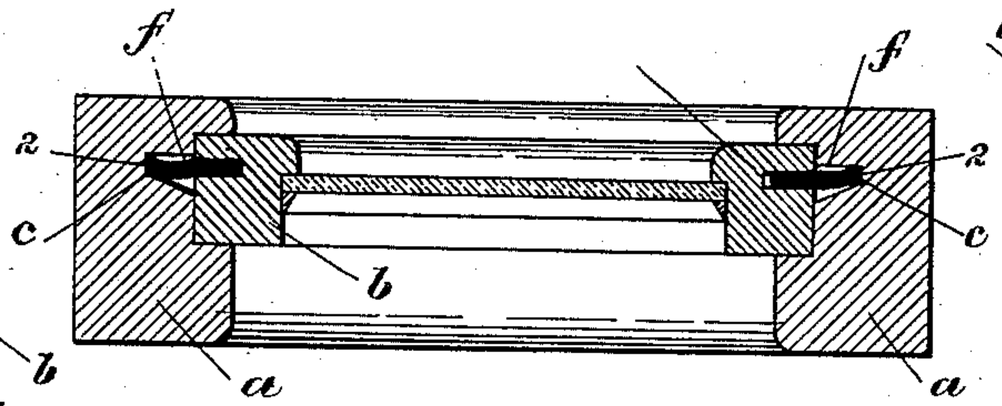

Fig. 3.

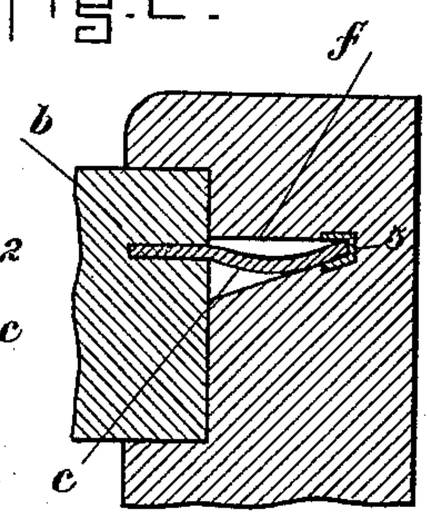

Fig. 5.

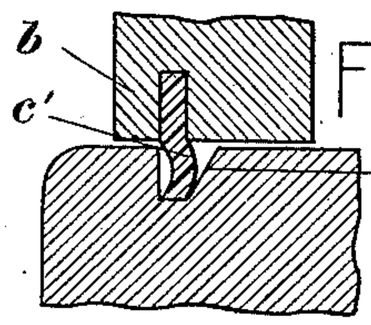

Fig. 6.

WITNESSES.

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WILLIAM H. DAWSON, OF LAWRENCE, MASSACHUSETTS.

CAR-WINDOW.

SPECIFICATION forming part of Letters Patent No. 387,403, dated August 7, 1888.

Application filed April 26, 1888. Serial No. 271,919. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. DAWSON, of Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Car-Windows, of which the following is a specification.

This invention has for its object to prevent the admission of dust, cinders, &c., around the sashes of car-windows; and it consists in a sash having a flexible strip, preferably of rubber, inserted in its edges, combined with a casing having grooves formed to receive said strip, the form and depth of each groove being such as that the outer edge of the sash-strip therein will closely fit the bottom of the groove, the depth of which is slightly less than the width of the strip, so that the latter has to be bent slightly, and is thus caused to bear firmly against the bottom of the groove, while the width of the groove is such as to permit the described bending of the strip, as I will now proceed to describe.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of the sash and a portion of the casing of a car-window having my improvement. Fig. 2 represents a vertical section of the same. Fig. 3 represents a horizontal section. Fig. 4 represents an enlarged sectional view of a portion of the sash and casing. Fig. 5 represents a similar view of a modification. Fig. 6 represents a section of a portion of the window ledge or sill and the lower portion of the sash.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents the casing of a car-window, and *b* the sash thereof.

In carrying out my invention I insert in the edges of the sash flexible strips *c c*, which are preferably of sheet rubber, said strips projecting outwardly from each vertical edge of the sash. A similar strip, *c'*, is preferably inserted in the bottom of the sash, as shown in Figs. 2 and 6.

The casing is provided with grooves *f f*, formed to receive said strips. The depth of each groove is slightly less than the width of the strip which enters it, and the bottom of each groove is made narrow to form a seat, 2, against which the outer edge of the strip *c* bears, said edge being held against the bottom of the groove with a yielding pressure which is caused by the transverse bending of the strip, which bending is made necessary by the excess in the width of the projecting part of the strip over the depth of the groove *f*. Each groove *f* is tapered or made wider from its bottom outwardly, as shown in Figs. 3, 4, and 5, to permit the described bending of the strip. It will be seen, therefore, that when the sash is inserted in the casing the strips *c c* at its vertical edges will enter the grooves *f f* and will be at once bent crosswise, as shown, the deflected portion of each strip being accommodated by the wider portions of the grooves, while the edges of the strips are closely pressed by the elasticity of the material of the strips against the seats 2 2 at the bottoms of the grooves. The joints between the edges of the sash and the casing are thus tightly closed and the window is prevented from rattling. The friction of the strips on the grooves is sufficient in some cases to support the sash in a raised position. The edges of the strips are guided by the seat 2 and the sides of the grooves, so that said edges cannot be displaced laterally.

The groove *f'* in the window ledge or sill is preferably formed like the grooves in the sides of the casing, and the strip *c'*, which enters said groove when the window is closed, is preferably wider than the depth of said groove, so that when the sash is closed said strip is slightly bent.

The strips may be of rubber, as already stated; or, if preferred, they may be made of metal sufficiently thin to have the required flexibility, in which case the bottom of the groove may be protected against wear by a lining, 3, of metal, as shown in Fig. 5.

I am aware that it is not new to apply a flexible strip to a window-sash, said strip being disposed in a groove in the parting-head between the upper and lower sash; but, so far as I am aware, a groove of the form herein shown and claimed has not been provided in the casing to receive and guide a strip projecting from the edge of a sash.

I claim—

A window-sash having flexible strips *c* projecting from its edges, combined with a cas-

ing having grooves of less depth than the width of the projecting portions of the strips and provided with narrow bottoms or seats 2 of the same width as the outer edges of the strips, and with inclined sides which converge from the outer ends or mouths of the grooves to the seats 2, said sides guiding the outer edges of the strips *c* to the seats 2 and keeping said edges in close contact with said seats, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 24th day of April, A. D. 1888.

WILLIAM H. DAWSON.

Witnesses:
C. F. BROWN,
A. D. HARRISON.