

No. 750,663.

PATENTED JAN. 26, 1904.

S. LENZNER.
WEATHER STRIP.

APPLICATION FILED AUG. 29, 1903.

NO MODEL.

FIG. 3.

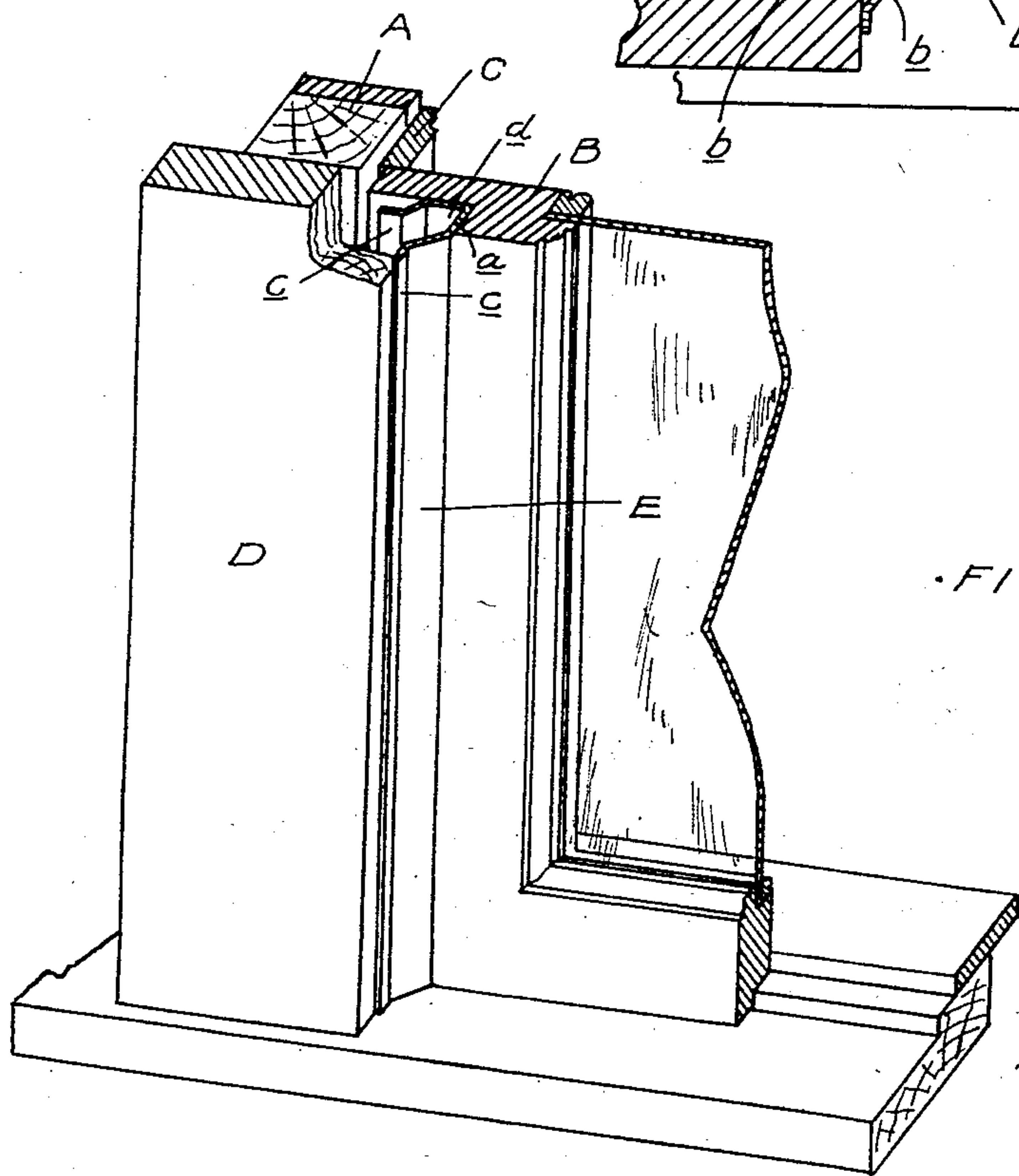
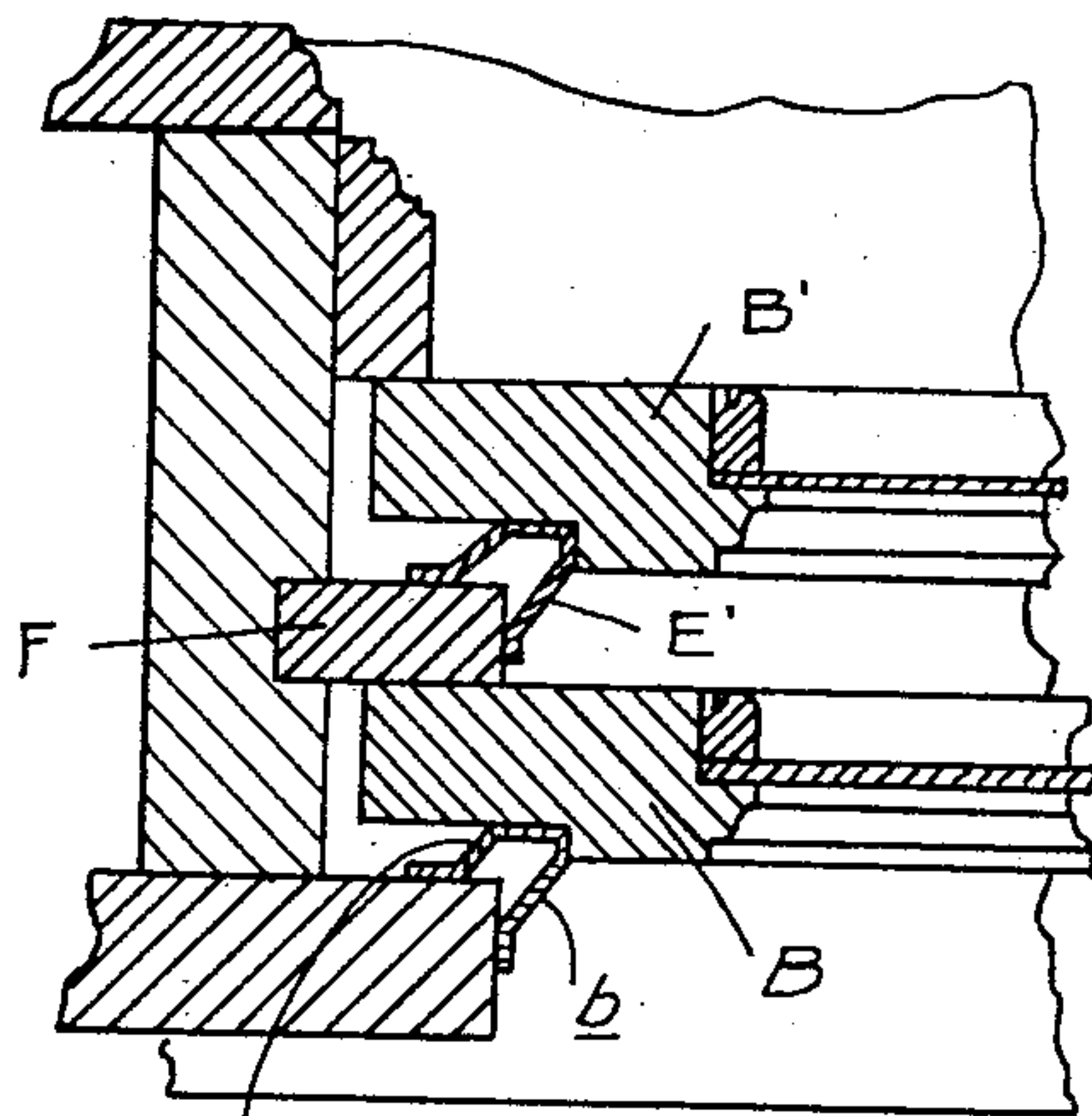
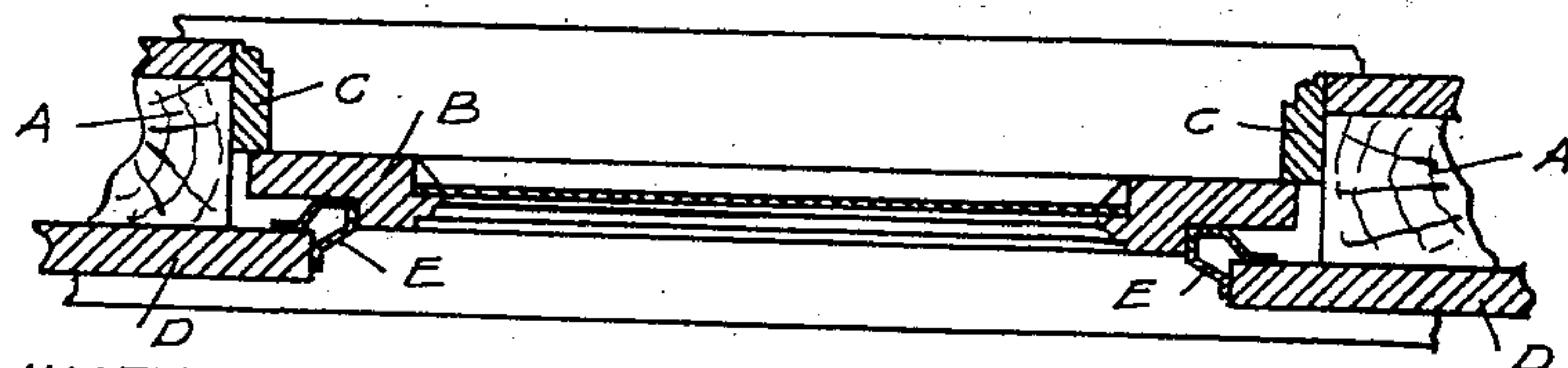


FIG. 1.

FIG. 2.



WITNESSES

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WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 750,663, dated January 26, 1904.

Application filed August 29, 1903. Serial No. 171,211. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL LENZNER, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to weather-strips more particularly designed for use on car-windows, but also applicable to house-windows and for other purposes.

It is the object of the invention to obtain a construction in which a tight joint is maintained, while at the same time the sash has a limited freedom to move laterally. This will permit the sash to be moved freely and will also prevent rattling.

The invention consists in the peculiar construction of the strip and, further, in the peculiar construction and arrangement of said strip in relation to the sash and window-frame, as hereinafter set forth.

In the drawings, Figure 1 is a sectional perspective view illustrating the improved strip applied to a single-sash window, such as a car-window. Fig. 2 is a horizontal section there-through. Fig. 3 is a similar horizontal section through a double-sash window.

A is a window-frame, which may be of any suitable construction except as hereinafter set forth.

B is a window-sash slidingly secured in said frame by stops, such as C and D. As shown in Fig. 1, the stop C bears against the inner face of the sash B, and the stop D is arranged adjacent to but spaced from the outer face of the sash, so as to permit of a limited lateral movement of the sash between stops. The sash B is also preferably of such a width as to provide suitable clearance between its edges and the window-frame.

E is the weather-strip. This in the form shown consists of a metallic strip which is bent to form a substantially rectangular corner *a* and a pair of wings *b*, extending obliquely from said corner portion. These wings terminate in flanges *c*, extending in planes substantially parallel, respectively, with the planes of the corner portions *a*. The sash B

is formed with a shouldered bearing, preferably by rabbeting out a portion thereof, as at *d*. This forms an angle or corner complementary to the corner *a* of the strip. The rabbet is located in such relation to the stop D that when the strip E is placed to engage the corner *a* with the bearing *d* the flanges *c* will embrace said stop, bearing against the perpendicular faces thereof. The wings *b* of the strip are of such a proportion that when said strip is thus engaged the sash B will be pressed against the stop C and will also be centered between the sides of the window-frame.

With the construction described the stop D will normally hold the sash centrally within the frame and braced against the stop C; but by reason of the fact that the strip is formed of resilient metal the pressure in both directions is yielding. This will permit of readily raising or lowering the sash in the frame, while at all times maintaining a tight joint.

In Fig. 3 is shown a modification illustrating a double-sash window, in which E' is a second strip similar in construction to the strip E. This strip is arranged in relation to the parting-strip F of the window-frame and the second sash B', the arrangement being the same as in the construction already described.

While I have shown a specific form of strip, I believe that various modifications in shape may be made without departing from the spirit of my invention.

The essential feature is a construction in which the bearing portion of the strip is maintained in contact with a shouldered bearing on the sash and also with a bearing on the window frame or stop, while the intermediate portion is yielding and resilient.

As shown in the drawings, the strip E is arranged on the outside of the window-sash and normally presses said sash inward against the stop C. Furthermore, the inclination of the portion *b* and the stop forms a beveled edge, which permits dust or cinders to be deflected instead of being lodged in the joint.

The construction just described is especially advantageous for car-windows, and it has a further advantage that the yielding pressure of the strip against the sash will cause the

latter to frictionally engage the stop C, and thus the window may be held in raised position without the necessity of a locking device. The pressure of the spring does not
5 interfere with the free raising or lowering of the sash, for the reason that the spring being on the outside the operator may easily press against the sash sufficiently to relieve it from frictional contact with the stop.

10 Another advantage of the construction is that the strips may be applied to windows without any change in the window-frame. All that is necessary is to remove the sash and form the rabbet therein for engagement
15 with the strip. Again, strips of this character may be removed and replaced without taking out the sash.

What I claim as my invention is—

20 1. The combination with a window-frame, of a slidable sash associated therewith, a resilient strip bent back upon itself and abutting a portion of the sash, the respective arms of which yieldably engage an angle bearing on the frame.

25 2. The combination with a window-frame having a longitudinal stop thereon, of a sash within said frame having a bearing portion, and a resilient strip abutting said bearing portion and having laterally-projecting portions
30 arranged to engage respectively one side and edge of said stop to yieldably center the sash within said frame.

35 3. The combination with a window-frame, of a sash within the same, having a bearing portion, a resilient strip bent back upon itself, the bent portion resting in said bearing portion, and its arms loosely engaging respectively one side and edge of the frame.

40 4. The combination with a window-frame, and a stop thereon, of a sash slidable within said frame, and a strip for yieldingly holding

said sash against the stop, said strip having a return-bent cross-section with the angle thereof engaging with the bearing on the sash, and the edges yieldably embracing an angle
45 bearing on the frame.

5. A weather-strip comprising a resilient strip of return-bent cross-section, forming a central angle portion separated portions extending from said angle portion, and edge
50 portions substantially parallel respectively with the opposite sides of said angle portion.

6. The combination with a window-frame having stops thereon, of a sash slidable between said stops, and rabbeted on one side to
55 form a clearance from one stop, and a strip of return-bent cross-section having its bent edge engaging an angle of said rabbet, and the edges of its separate sides respectively engaging the stop and side of the adjacent stop. 60

7. The combination with a window-frame and slidable sash, of a stop on the frame inside of the sash, and a resilient strip on the outside of the sash, yieldingly pressing thereon and having laterally-projecting arms yield-
65 ingly engaging a side and edge of said frame to form a weather-tight joint, and also a frictional engagement between the sash and stop.

8. The combination with a window-frame, of a slidable sash, a stop on said frame inside
70 the sash, and a resilient strip yieldingly pressing against the outer face of said sash, and inclined in relation thereto, a portion of said strip extending over the outer edge of said frame whereby dust is deflected and prevented from lodging in the joint. 75

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL LENZNER.

Witnesses:

JAMES P. BARRY,
EMMA I. BARNES.