April 12, 1932. H. BIANCO 1,853,845

ABSORBENT WEATHER STRIPPING FOR WINDOWS

Filed May 20, 1930

Fig. 1.

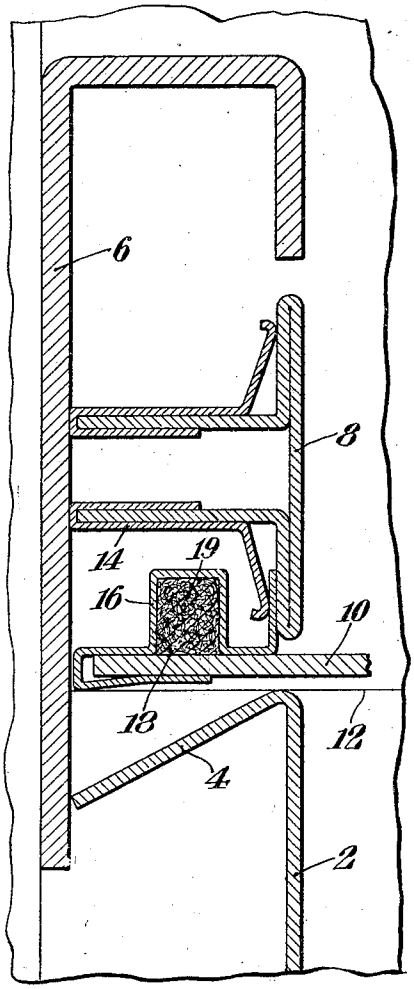
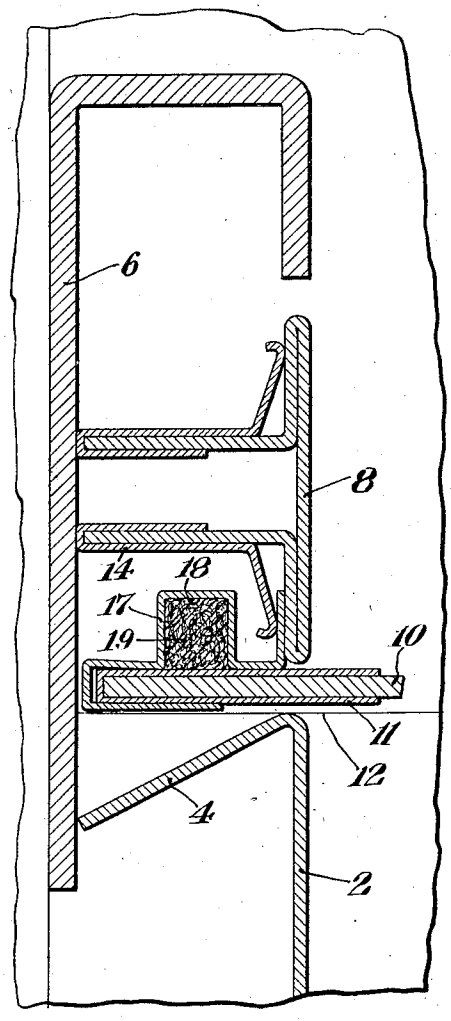


Fig. 2.



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UNITED STATES PATENT OFFICE

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ABSORBENT WEATHER STRIPPING FOR WINDOWS

Application filed May 20, 1930. Serial No. 453,920.

This invention relates to weather seals for windows of the type in which the jambs have vertical openings through their inner face which lead to enlarged chambers within the jambs and the sashes have plates which extend into these openings, and involves a modification of or improvement upon the construction shown in Campbell Patent No. 1,673,393, issued June 12, 1928. With windows of this type it is customary to construct the sill so that there is an approximately vertical portion or break in the sill about in line with the inside edge of the vertical opening provided for the lower sash. On the room side of such break the sill is ordinarily substantially flat, and at such break the sill drops downwardly so that the lower sash extends down outside of such break. A detailed showing of a sill construction in which this break is particularly apparent is found in Campbell application, Ser. No. 375,384, filed July 2, 1929.

Where the window is exposed to heavy wind pressures as in modern high buildings, there is danger, in the event of a driving rain storm, that water will be driven around the ends of the lower sash plates and run to the flat portion of the sill which extends into the jamb, and then leak through into the room. By my present invention I provide a construction which overcomes this difficulty. Inasmuch as the construction is primarily intended for the lower sash of the window, I have illustrated it only in this connection, but it may also be used in connection with the upper sash if occasion should demand.

My invention may be readily understood by reference to the accompanying drawings in which Fig. 1 shows a section through a portion of a window jamb and sash of the type referred to and Fig. 2 represents a similar view of a modified form.

In these drawings the numeral 2 represents the indoors portion of the inner jamb wall which is bent outwardly as shown at 4 to contact with the partition member 6 in the jamb. Attached to the partition member 6 is a baffle 8 which also forms a part of the inner jamb wall. Extending into the space between members 2 and 8 is a sash plate 10 which is here intended to be a part of the lower sash. The line 12 indicates the break of the sill. This is not shown in detail as it forms no part of my present invention. Hooked in back of baffle 8 is a member 14 made of flexible material so shaped that it is tensioned toward the rear face of baffle 8 near the opening between the members 2 and 8. Member 14 ordinarily is made to extend the height of the sash.

In Fig. 1, member 16 is hooked over the end of the sash plate 10 and is bent as shown in the drawing to form a columnar space or pocket 18 with the face of sash plate 10, and is further bent to contact once more with sash plate 10 and has an extension which runs between the member 14 and the rear face of the baffle 8. It is to be understood that member 16 is connected with the sash plate 10 so that it will move vertically with the sash plate, but may move horizontally relative to the sash plate. Such a method of connection is shown in the said Campbell Patent No. 1,673,393.

Felt, or other absorbent material designated by reference character 19, is placed in space 18 in such quantity as will insure a good contact between sash plate 10 and the column of felt.

With this construction if rain is driven by a high wind against the sash and tries to leak into the jamb, it must follow either one of two courses. If it forces the extending portion of member 16 away from the rear of the baffle 8, it cannot get around the sash plate 10 for members 16 and 14 will be in spring contact; and if the water follows along the face of the sash between the sash and member 16, it strikes the absorbent material in space 18, and seeps down through the column of felt to the window sill outside of the sash plate 10 and outside of the break 12 of the sill.

Figure 2 represents a modified form of the structure shown in Figure 1. A U-shaped member 11 is slipped over the edge of the sash plate 10 in a close fitting manner. The arms of the U-shaped member are long enough to cover the portion of the sash plate that enters the jamb and should extend for an appreciable distance, in close contact with the sash plate, outwardly from the point at

which the latter enters the jamb. Member 11 moves vertically with sash plate 10, but may move horizontally relative thereto and, for the purposes of this application, can be considered a portion of the sash plate 10. Where the sash plate and jamb are constructed of a similar metal such as aluminum, a member such as 11 is advantageously interposed, being constructed of zinc or other dissimilar metal in order to prevent binding, as pointed out in Campbell application, Serial No. 383,190.

The length of the arms of the U-shaped member 11 and their close embracing of the sash plate 10, together with the fact that the arms of the member extend well beyond the jamb opening, prevent any substantial leakage between member 11 and sash plate 10. A member 17 makes a seal between member 11 and the jamb member in the same manner as member 16 seals the sash plate and the jamb member as represented in Fig. 1, and therefore, for the purposes of this application, member 11 may be described as a part of the sash plate.

With structures as shown in Fig. 1 and Fig. 2, the felt column has no vertical movement relative to the sash member projecting into the jamb, which it seals, and little or no horizontal movement relative thereto, and so is subjected to a negligible amount of wear.

It is to be understood that the foregoing examples are merely illustrative of the embodiment of my invention and are not to be used in limiting the same.

What I claim is:

1. In a window of the type having jambs, openings through the inner walls of the jambs, a baffle forming part of the inner jamb wall between such openings and sashes having plates adapted to extend through such openings, sealing members movable horizontally but not vertically relative to the sash plates carried by the sash plates within the jambs, each forming an enlarged space upon one side of its sash place, each such sealing member being adapted to contact with a jamb member adjacent the opening for said sash plates, and absorbent filling within said enlarged space.

2. In a window of the type having jambs, openings through the inner walls of the jambs, a baffle forming part of the inner jamb wall between such openings and sashes having members adapted to extend through such openings, sealing members movable horizontally but not vertically relative to the sash members carried by the sash members within the jambs forming enlarged spaces with the sash members, said enlarged spaces being on one side of said sash members said sealing members being adapted to contact with jamb members adjacent the openings for said sash members and felt filling said enlarged spaces.

3. In a window of the type having jambs, openings through the inner walls of the jambs, a baffle forming part of the inner jamb wall between such openings, separate enlarged chambers back of such openings and sashes having members adapted to extend through such openings, sealing members within the jambs carried by the sash members movable horizontally but not vertically relative to the sash members adapted to contact with jamb members and each adapted to contact with a sash member within the jamb at two points on the outdoor side of such sash member and to form an enlarged space adjacent such sash member between such points of contact, and felt filling said enlarged space.

HENRY BIANCO.