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EXTRUDED METAL SILL

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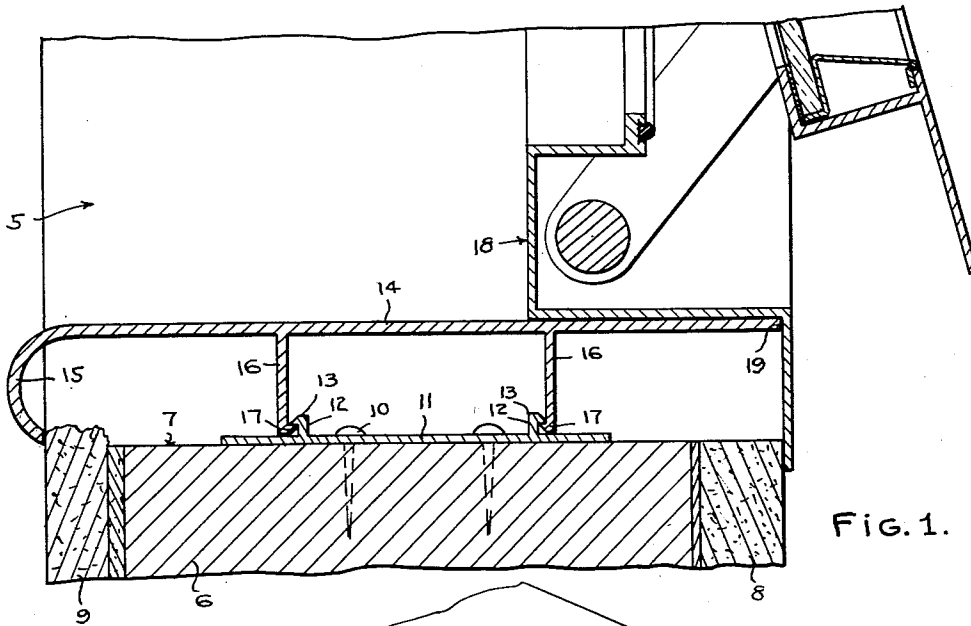


FIG. 1.

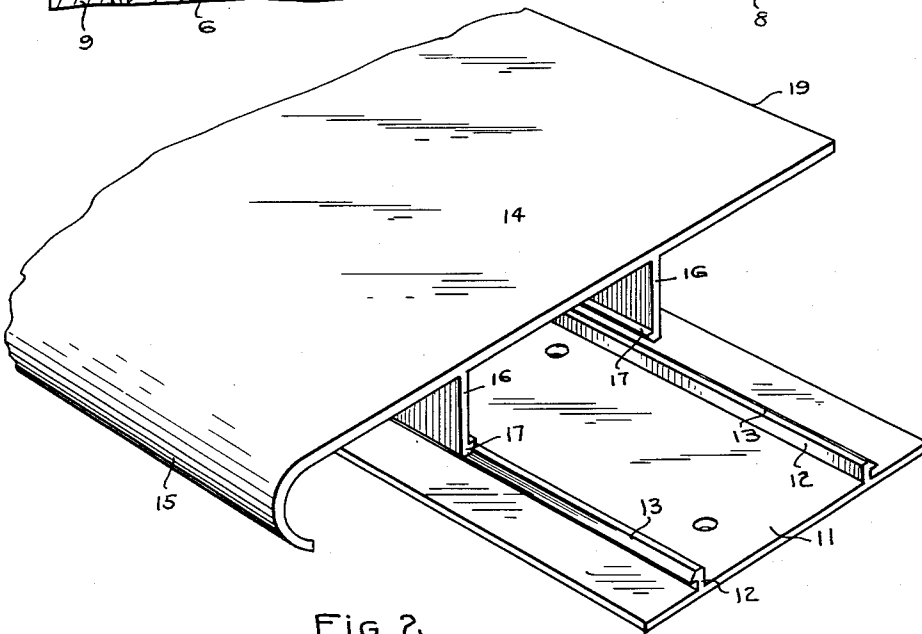


FIG. 2.

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EXTRUDED METAL SILL

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3 Claims. (Cl. 189-75)

This invention relates to a metallic sill device for window openings and to constitute a substitute sill for the conventional tile, wood or other forms of sills heretofore employed.

The sill device to be hereinafter described is adapted to extend for the full width of the window or wall opening and is adapted to be used in connection with conventional window frames and to underlie a base rail of the window frame or to have abutting engagement with the inner side of the rail.

The invention contemplates a novel form of window sill and a connecting base plate that are both extruded from aluminum or other materials and with the base plate and the sill member having cooperative means whereby the sill may be snapped into engagement with the base plate.

An object of the invention is to provide a sill member having depending spaced apart ribs that are provided with beveled tongues and whereby the major area of the sill is reinforced throughout its length against downward flexing and with the tongues adapted to have flexible snapping engagement with corresponding tongues formed upon ribs that are carried by a base plate that is fixedly engaged with the relatively rough sill portion of the window opening and whereby the base plate after installation constitutes a connecting means for the sill member against displacement. Sills heretofore employed are of varying forms, such as ceramic tile, marble or in some cases the sill is covered by a coat of cement plaster. Such constructions have proven unsatisfactory and are subject to breakage, discoloring or the like and the sill member of this invention permits of the sill and a connecting plate to be extruded in relatively long lengths to be subsequently cut for a particular size of window opening, such greatly reducing the cost of manufacture and the cost of installation and the sill member of the present invention is preferably extruded from aluminum and is chemically treated to provide various colors that will not fade, are easily cleaned and are not subject to objectionable stains.

Novel features of construction and operation of the device will be more clearly apparent during the course of the following description, reference being had to the accompanying drawings wherein has been illustrated a preferred form of the device and wherein like characters of reference are employed to denote like parts throughout the several figures.

In the drawings:

FIGURE 1 is a fragmentary transverse vertical section taken through the base portion of a window opening and showing the invention applied thereto in combination with a conventional window frame, and

FIGURE 2 is a composite fragmentary perspective view of the device prior to installation.

Referring specifically to the drawings, the numeral 5 designates a window opening having the usual lower head 6 that constitutes the roughed-in sill 7. The head 6 may be formed of wood or, it may be the uppermost course of concrete blocks forming the wall section beneath the window opening. The head 6 is usually stuccoed upon the outer wall area as indicated at 8 and is plastered upon the inner wall area as shown at 9. Fixed upon the head 6 at a predetermined point and secured by nails or other fastening devices 10, is an extruded aluminum connector plate 11. The plate 11 preferably extends for the full width of the window opening. The plate 11 is provided

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with upstanding longitudinally extending ribs 12 having beveled head portions 13.

Disposed in overlying relation to the sill 7, is an extruded aluminum sill plate 14, having its inner longitudinal edge downwardly curved as indicated at 15. Formed integral with the plate 14 are a pair of spaced apart flanges 16 having their lower edges provided with beveled hooks 17. The flanges 16 also extend for the full length of the sill plate 14. The spacing of the flanges 16 is such that the beveled hooks 17 have a snapping interlocking engagement with the hook-like elements 13 formed upon the ribs 12 of the plate 11. The flanges 16 are sufficiently flexible so that the bevel hooks 17 will override the bevel heads 13 at installation of the sill plate.

As illustrated in FIGURE 1, the forward free portion of the sill plate 14 is disposed in underlying relation to a conventional metallic window frame 18. It will be apparent that in frame constructions, the width of the wall is relatively less than in masonry construction and it is also contemplated, that in masonry construction, the window frame 18 may be disposed in abutting relation to the free edge 19 of the sill plate 14 and in such use, the full transverse width of the plate 14 will be disclosed.

In the use of the device, the window opening having been constructed and the wall areas finished on the outer and inner sides as shown at 8 and 9, the plate 11 is cut from an extruded length of material to substantially span the longitudinal width of the sill 7. The plate 11 is then securely fastened to the sill 7 by the fastening devices 10 after which the plate 14 and the flanges 16 are disposed in overlying relation and the plate 14 pressed downwardly, causing the flanges 16 to flex outwardly to override the beveled hook-forming ribs 12 and when fully engaged with the hooks 13, the lower marginal edges of the flanges will be in substantial resting engagement upon the upper surface of the plate 11. The curved nose portion 15 of the plate 14 is so proportioned as to terminate against the finished plaster 9. The sill plate is thus positively and permanently held against displacement, while the flanges 16 reinforce the plate 14 throughout its length against downward flexing. After the sill plate 14 has been installed, the window frame 18 is then disposed within the opening to either overlie the plate 14 or to have abutting engagement with the marginal edge 19, thus offering a finished appearance and a novel form of sill that is calculated to form a very ornamental trim for the window opening. While apertures have been illustrated in the plate 11 inwardly of the ribs 12, it may be found desirable to have these apertures outwardly of the ribs.

It will be apparent from the foregoing that a very novel form of metallic window sill has been provided. The device is simple, readily lends itself to extrusion methods, is cheap to manufacture, is strong, durable and easily and quickly installed within a window opening. Aluminum readily lends itself to chemical treatment whereby it is impregnated with various colors in accordance with the decorative interior finish of the building.

It is to be understood that the invention is not limited to the precise construction shown, but that changes are contemplated as readily fall within the spirit of the invention as shall be determined by the scope of the subjoined claims.

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

1. An extended sill-forming device for use in a pre-formed window opening having an unfinished sill that defines the bottom of the opening, the device comprising a base plate and a cover plate engaging the same, the base plate being fixedly attached to the unfinished sill to be co-extensive therewith, the base plate having a plurality of integral and spaced-apart ribs, the cover plate being co-extensive in length to the unfinished sill, a plurality of

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spaced-apart depending flanges formed on the cover plate and located inwardly of its opposite edges whereby a marginal edge portion of the cover plate extends laterally beyond the flanges, interlocking means formed on the edges of the ribs and flanges so that the flanges interlock with the ribs when the cover plate is installed in the window opening, the ends of the flanges resting upon the base plate to thereby support the cover plate and resist its downward flexing, one of the edges of the cover plate being adapted to engage a window frame that is disposed in the opening, the other marginal edge portion of the cover plate being of arcuate form and presenting its extremity against the surface of an inner wall area below the window opening.

2. The device according to claim 1, wherein the flanges have a depth that the same form spaced vertical partitions between the cover plate and the base plate to support the cover plate in a substantial spaced relation to the base plate and the unfinished sill, the inner arcuately-shaped marginal edge of the cover plate being downwardly curved to engage the inner wall area and to close the space between the cover plate and the unfinished sill and form a rounded inner terminal thereon.

3. An extended sill-forming device for use in preformed window openings having an unfinished sill that defines the bottom of the opening, the device comprising a

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base plate and a cover plate, the base plate being fixedly connected to the unfinished sill to be co-extensive therewith, the base plate having integral upstanding and spaced apart ribs, the cover plate being co-extensive in length to the unfinished sill, spaced apart integral depending flanges formed on the cover plate whereby to reinforce the cover plate against downward flexing and interlocking means formed upon the marginal edges of the ribs and the flanges whereby the flanges have interlocking engagement with the ribs when the cover plate is installed in the window opening and forced downwardly, one free edge of the cover plate adapted to engage a window frame that is disposed in the opening, the other free edge of the cover plate terminating in overlying engagement with a finished plastered surface of an inner wall area, the said ribs and the flanges being co-extensive in length with the base plate and the cover plate respectively, the flanges being intermediate the width of the cover plate and being covered and concealed.

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