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Paull

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[54] **REVERSIBLE SILL ASSEMBLY WITH A POSITIVE FLUID DRAIN**

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[51] **Int. Cl.** **E04b 1/343,** EO6b 7/14

[58] **Field of Search** 52/302, 209, 498-502, 52/127, 495, 235, 729-732, 693, 694, 696, 397-400; 49/471, 476, 501, 504

[56] **References Cited**

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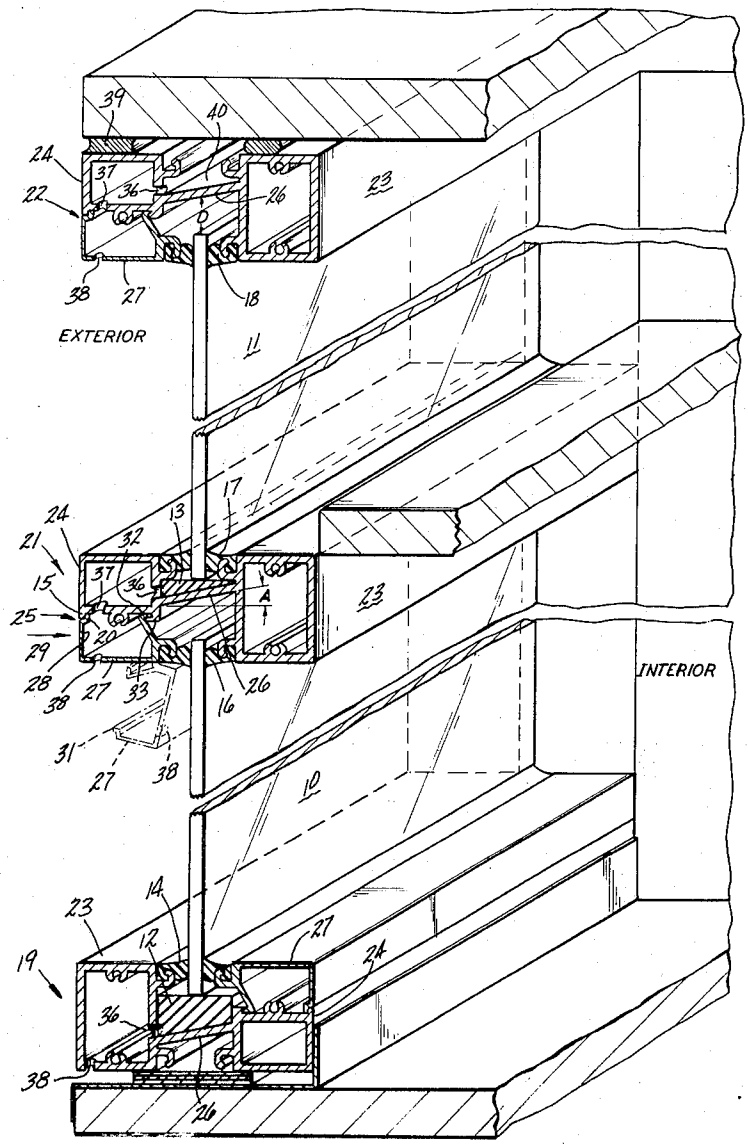
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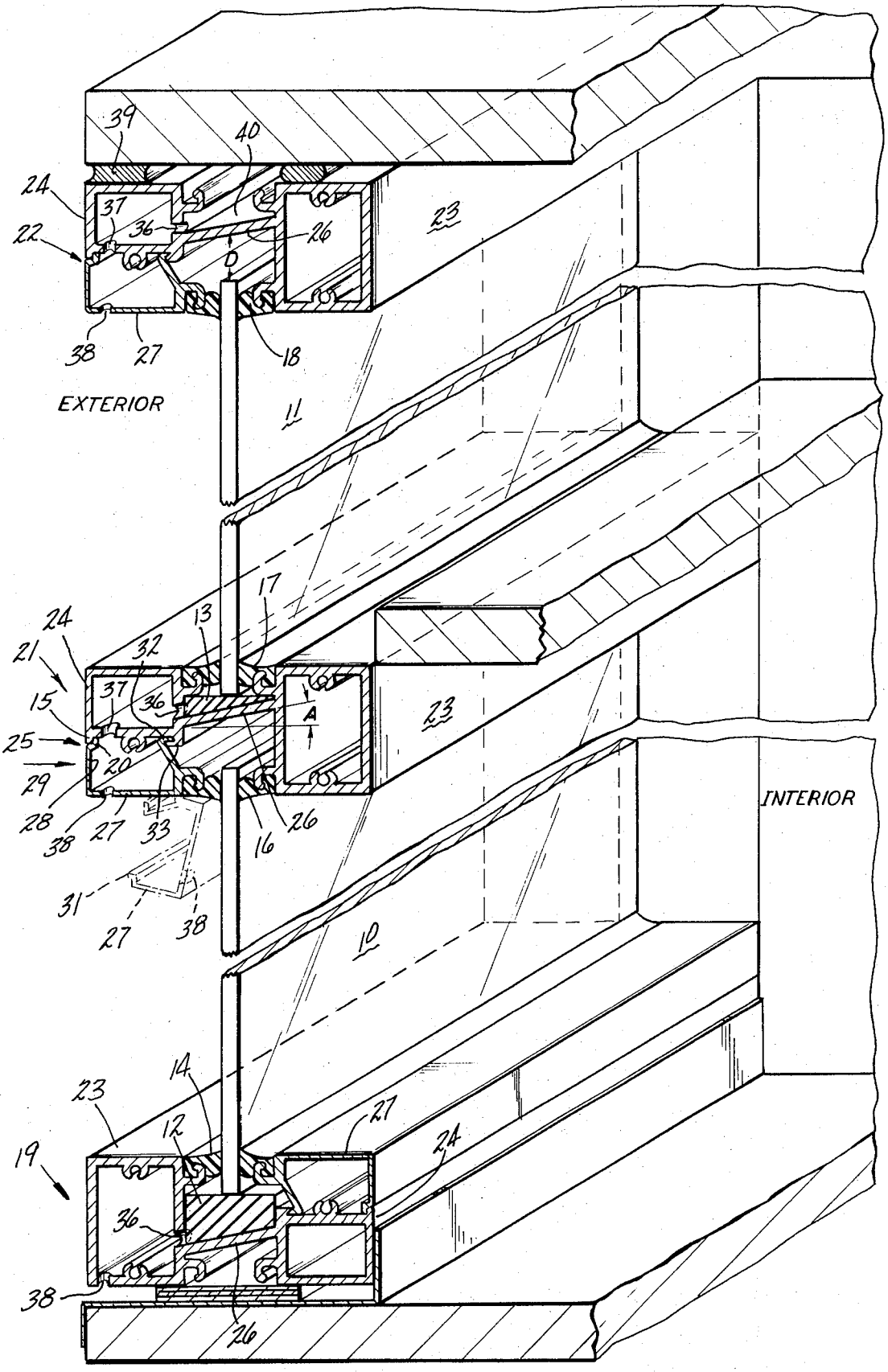
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[57] **ABSTRACT**

A reversible sill structure operable in a first position to receive closure panels from the exterior of a building wall and operable from a second position to receive closure panels from the interior of said wall selectively having a fluid drain structure which operates to direct a fluid to the exterior of the building in either position.

1 Claim, 1 Drawing Figure




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REVERSIBLE SILL ASSEMBLY WITH A POSITIVE FLUID DRAIN

BACKGROUND OF THE INVENTION

The present invention relates to sill structures used to support closure panels forming an integral part of an exterior wall of a building.

Typical prior art sill structures are disclosed and described in U.S. Pat. No. 3,579,943, issued to Wayne C. Tam.

More particularly, the invention relates to an improvement in sill structures.

A feature of the invention is the provision of a reversible sill structure or assembly operable selectively to receive panels from an exterior or interior station as desired.

A further feature is the provision of a fluid drain structure which operates universally to direct fluids to the exterior of a building.

A further feature is the provision of a manually separable sill structure which facilitates introduction of closure panels into the sill.

A further feature is the provision of a fluid drain system cooperating with said improved sill structure.

A representative embodiment of the improved sill structure embracing the principles of the invention may include a reversible sill assembly operable selectively in a first position to receive closure panels from an interior station and operable in a second position to receive closure panels from an exterior station comprising a pair of spaced tubular members, an inclined web joining said tubular members operable to direct fluid in a predetermined direction, one of said tubular members being manually separable to facilitate insertion (reception) of panels, said sill being reversible or rotatable through 180° about a horizontal axis to permit panel installation from said interior or exterior stations, as desired, said inclined web remaining operable to direct fluid in said predetermined direction in either of said positions.

Other features and advantages of the invention will become more apparent from an examination of the specification when read in conjunction with the appended drawing in which:

The single FIGURE is a perspective view of a sill and panel arrangement illustrating a representative embodiment of the invention;

The reference numerals **10** and **11** denote closure panels of glass or other suitable closure material supported vertically on setting blocks **12** and **13** and sealed to weather by gaskets **14, 16, 17** and **18**;

The sill assembly, indicated generally by the reference numerals **19, 21,** and **22,** includes a pair of spaced tubular members **23** and **24** joined by a generally transverse inclined web **26.**

Snapon element **27** which is detachably mounted on tubular member **24** is separable longitudinally and manually to provide access or clearance to facilitate panel installation.

Thus, manually separable snap-on element **27** is movable from an operable or closed position shown in solid lines to an open or separated position shown in dotted lines (sill assembly **21**) in that lateral pressure exerted upon the web **28** in the direction shown by the arrow **29** releases friction clip **25** to permit the snap-on element to rotate from the solid line position to the dotted line position.

In fact, snap-on element **27** is entirely removable and separable from tubular member **24** after the friction clip **25** is released.

In the closed position, snap-on element **27** is retained frictionally by the cooperation of lips **15** and **20** and the corresponding interlock of mating ribs **32** and **33.**

Note that setting blocks **12** and **13** are short segmental blocks and do not extend along the full length of the inclined web **26.** This is so because web **26** provides a conduit for directing fluid and communicates with apertures or weep holes **36, 37** and **38** to define a fluid drain system which flows to the exterior of the building.

In the bottom sill assembly **19** of the single figure, the snap-on member **27** is disposed on the interior of the panel **10** thereby facilitating insertion of the panel from within the building and the inclined web **26** provides a fluid drain to the exterior of the building via weep holes **36** and **38.**

Observing sill assembly **21** in the center of the drawing, it is apparent that the assembly **21** has been rotated **180°** about its horizontal axis to permit introduction of closure panels from the exterior.

In this position of the sill assembly **21,** as well as the sill assembly **22,** the inclined web **26** remains disposed in a direction which sheds fluid to the exterior of the building through weep holes **36, 37** and **38.**

As stated previously, the drain system includes the inclined web and the weep holes; it is preferred that the web **26** subtend an included angle A with respect to the horizontal ranging from 3° to 15°.

A limiting factor governing the maximum included angle subtended by the web **26** is a function of the panel to provide necessary clearance or head space in a vertical direction at the time of panel installation. The clearance dimension is indicated by the letter D in sill assembly **22.**

It is anticipated that a variety of modifications and design changes may be devised in the disclosed embodiment of the improved sill assembly without departing from the spirit and scope of the principles of the invention.

What is claimed is:

1. A reversible sill assembly operable selectively in a first position to receive closure panels from an interior station and in a second position to receive closure panels from an exterior station which comprising:

A. a pair of spaced-apart tubular members;

B. an inclined web joining said tubular members operable to direct fluid in a predetermined direction which subtends an included angle with respect to the horizontal ranging from 3°to 15°;

C. a snap-on element detachably mounted on one of said tubular members and manually separable therefrom to facilitate insertion (reception) of panels; and

D. a drain system consists essentially of a plurality of fluid drain holes located in both of said tubular members communicating with said web operable to direct fluid distally away from said web, through said tubular members and out of said assembly; wherein said sill is reversible or rotatable through 180° about a horizontal axis to permit panel installation from said interior or exterior stations, as desired, and said inclined web remains operable to direct fluid in said predetermined direction in either of said positions.

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