ABSTRACT OF THE DISCLOSURE

There is provided a spacer for use with a wall construction of the general type having a hollow vertical mullion and interconnecting horizontal mullions or structural elements. The vertical mullion includes a filler having a glazing channel of generally U-shaped section formed therein. The spacer includes a longitudinally extending top cross bar and a longitudinally bifurcated downwardly depending bar of resilient material and adapted to snap over a leg of the glazing channel so as to prevent deflection of the filler section inwardly relative to the vertical mullion.

The present invention relates to an improved wall construction, and specifically, to an improved wall construction and a new and novel spacer for use therewith which prevents inward deflection of the glazing filler in a vertical mullion wall.

In a commercially known type of wall construction, there is provided a generally U-shaped vertical mullion having an intermediate transversely extending mullion wall. Interconnecting horizontal structural members or mullions are secured to the vertical mullions. More specifically, the suitable shear blocks are secured to the outer wall of the vertical mullion, and the intermediate horizontal members in turn are fastened to the shear block. Such construction is far more fully illustrated in my counter-pending application, Ser. No. 815,633, filed even date herewith. A glazing member or filler, having a glazing channel, is snapped into the open end of the hollow mullion section, terminating at the horizontal mullions. Since the horizontal mullions abut against the outer surface of the vertical mullions, inward deflection of the filler member creates a gap in the window frame which is unsightly and undesirable from a weathering point of view.

Accordingly, an object of the present invention is to provide a new and improved wall construction which overcomes the above-mentioned difficulty.

Another object of the present invention is the provision of a new and improved spacer for use with a wall construction of the type described and which prevents inward deflection of the filler member.

Further objects and advantages of the present invention will become apparent as the following description proceeds and the features of novelty which characterize the invention will be pointed out, with particularity in the claims annexed and forming a part of this specification.

In accordance with these and other objects, there is provided an improved wall construction including a vertical mullion section having a transversely extending mullion wall defining a frame pocket, closed by a filler member defining a second wall and having a glazing channel of generally U-shaped section formed therein extending inwardly toward the mullion wall. The filler member extends along the vertical mullion intermediate any horizontal structural members. In accordance with the present invention, there is provided an improved spacers having a longitudinally extending top cross bar and a longitudinally bifurcated downwardly extending bar of resilient material snapped over the end of a leg of the glazing channel. The top cross bar spaces the leg of the glazing channel relative to the mullion transverse wall and prevents inward deflection of the filler member.

In accordance with another feature of the present invention, it is common to provide reinforcing bars or members within the hollow interior of a vertical mullion. To this end the top cross bar of the spacer is scored or weakened to permit breaking off a section thereof, so that by the reversal of the spacer a half turn over the leg of the glazing channel, the top bar of the spacer will be of the proper length to provide for engagement with a reinforcing bar.

For a better understanding of the present invention, reference may be had to the accompanying drawings wherein:

FIG. 1 is a perspective view of a typical wall construction according to the present invention;

FIG. 2 is a cross-sectional view of the wall construction of FIG. 1, taken along line 2—2, and illustrating the spacer members;

FIG. 3 is an exploded perspective view illustrating the assembly of a spacer member onto the leg of a glazing channel; and

FIG. 4 is an enlarged view illustrating the positioning of a filler member by a spacer relative to the transverse wall of a vertical mullion.

Referring now to the drawings, there is illustrated in FIG. 1 a wall construction according to the present invention. More specifically, there is illustrated a plurality of spaced vertical mullions 10, interconnected at their top by a header member 11, and at their bottom by a base member 12. Intermediate the length of the vertical mullions there are intermediate horizontal mullions or structural members 13. The vertical mullions together with the members form openings containing glass or other panels 15. As more fully described in my above-mentioned co-pending application, the horizontal members 13 abut against the outer or jamb surface of the vertical mullions 10, and may be secured thereto by suitable shear blocks 16.

Referring now to FIG. 2, a typical vertical mullion 10 is of general I-shape, having a top extending mullion wall 10a, face walls 10b and inwardly extending flanges 10c, which together define hollow mullion sections forming frame pockets 17. The pockets 17 may be closed by suitable filler members 20, and in the illustrated embodiment, the filler members 20 have interfitting longitudinal parts 21 and 22 for lockingly engaging the ends of the flanges 10c. The filler members 20 form a side wall of the mullion assembly, and include a glazing channel 24 of generally U-shape extending inwardly toward the transverse mullion wall 10a. The glazing channel 24 includes side legs 24a interconnected by the bight portion 24b. Moreover, confronting gasket channels 25 are formed along the outer edges of the glazing channel 24 to position and secure suitable weathering gaskets 26 and 27, fixing the glass 15 within the glazing channels 24.

If desired, a suitable reinforcing bar 28 can be positioned within the hollow mullion section, as needed. In the illustrated embodiment, one of the hollow mullion sections includes a reinforcing bar 28 of generally U-shape, having its bight portion forming a part of the transverse mullion wall.

Inward deflection of a filler member 20 would cause separation with the butt jointed horizontal members 13, and would adversely effect the weathering of the wall. Accordingly, there is provided in accordance with the present invention a spacer 30 to prevent such inward deflection of the filler member 20. More specifically, the spacer 40 is formed of resilient material such as nylon, and includes a longitudinally extending top cross bar 31,
and a longitudinally bifurcated downwardly depending bar 32. The bifurcated bar 32 is readily snapped over one of the legs 24a of the glazing channel 24, and preferably on the outer one of the legs 24a. The bifurcated bar 32 of the spacer 30 defines a longitudinal slot 32a having chamfered confronting edges 32b projecting inwardly to define inwardly projecting beads 32c adjacent the upper end of the slot 32a. The beads 32c will grip leg 24a of the glazing channel. The bifurcated bar is of a length equal to the depth of the leg 24a so as to be firmly held thereon. One end of the top cross bar 31 extends beyond the bottom of the glazing channel 24 and engages with the transverse mullion wall.

In accordance with another feature of the present invention, there is provided a suitable weakened or scored portion 34 of the top cross bar 31 to permit breaking off of the top cross bar 31 at the score mark. Thus, the spacer 30 may be turned a half turn, and snapped with the other end of the top cross bar toward the transverse mullion wall 10a when a reinforcing bar 28 is used, as illustrated with the spacer 30' in FIG. 2.

It will be understood that a wall construction of the type illustrated and employing spacers 30 on the outer one of the side legs 24a of the glazing channels 24 will prevent inward deflection of the filler members 20, thus eliminating openings between the filler members and the intermediate horizontal members 13.

What is claimed as new and desired to be secured by Letters Patent of the United States is:

1. A wall construction including a vertical mullion section having a transversely extending mullion wall defining a frame pocket and a second wall defined by a filler member having a glazing channel of generally U-shaped section formed therein extending inwardly toward said mullion wall, said channel having spaced side legs interconnected by a bight portion; a horizontal structural member having one end butt fitted to said vertical member; and a spacer including a longitudinally extending top cross bar and a longitudinally bifurcated downwardly depending bar of resilient material and snapped over the end of a leg of said glazing channel, said top cross bar spacing said leg relative to said mullion wall.

2. A wall construction as set forth in claim 1 and including a reinforcing member in said frame pocket defining in part said transversely extending mullion wall, said spacer having one end of the top cross bar shorter than the other end and fitted with the shorter end against said reinforcing member.

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