

Title (en)  
MIDDLE BEAM FOR WINDOW FRAMES

Publication  
**EP 0312646 B1 19920226 (DE)**

Application  
**EP 87116492 A 19871109**

Priority  
DE 8714076 U 19871021

Abstract (en)  
[origin: US4894973A] A reinforcing and mounting structure for frames, especially window frames, has an inner metal sectional insert fitting into a hollow channel frame member and frame cover elements surrounding the hollow channel frame member on at least three sides. The sectional insert is wedged into the hollow channel frame member and attached at its end faces by screws to frame elements of the frame such as a window frame. The improved mounting structure is less expensive to produce, easier to install, and achieves a considerably increased strength and loadability with the same cross-sectional dimensions relative to prior structures. The sectional insert includes two sectional insert halves (1a, 1b) arranged back-to-back in a mirror image fashion. Each sectional insert half (1a, 1b) essentially has a configuration with a U-shape cross-section with a base shank and two leg shanks. The base shanks of the two insert halves (1a, 1b) are arranged back-to-back to face each other and include pleats (4, 5) extending in the lengthwise direction and running in parallel at a spacing from one another to form together two hollow screw channels (6, 7). The screws wedge the leg shanks apart, thereby securing the insert in the hollow channel and simultaneously securing frame members to each other.

IPC 1-7  
**E06B 1/36; E06B 3/96**

IPC 8 full level  
**E06B 1/36** (2006.01); **E06B 3/22** (2006.01); **E06B 3/26** (2006.01); **E06B 3/68** (2006.01); **E06B 3/96** (2006.01); **E06B 3/964** (2006.01); **E06B 3/972** (2006.01)

CPC (source: EP US)  
**E06B 3/222** (2013.01 - EP US); **E06B 3/68** (2013.01 - EP US); **E06B 3/9636** (2013.01 - EP US); **E06B 3/9642** (2013.01 - EP US); **E06B 3/972** (2013.01 - EP US)

Cited by  
EP0620353A1; EP0463405A1; DE19547471C1; US5974758A

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**US 4894973 A 19900123**; AT E72871 T1 19920315; DE 3776910 D1 19920402; DE 8714076 U1 19880121; DK 165302 B 19921102; DK 165302 C 19930322; DK 658187 A 19890422; DK 658187 D0 19871215; EP 0312646 A2 19890426; EP 0312646 A3 19900606; EP 0312646 B1 19920226; ES 2029253 T3 19920801; FI 85052 B 19911115; FI 85052 C 19920225; FI 875369 A0 19871207; FI 875369 A 19890422; GR 3003899 T3 19930316

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