Nov. 14, 1967 J. SCHWARTZBERG 3,352,074

DOOR FRAME FASTENING DEVICE

Filed Aug. 13, 1965

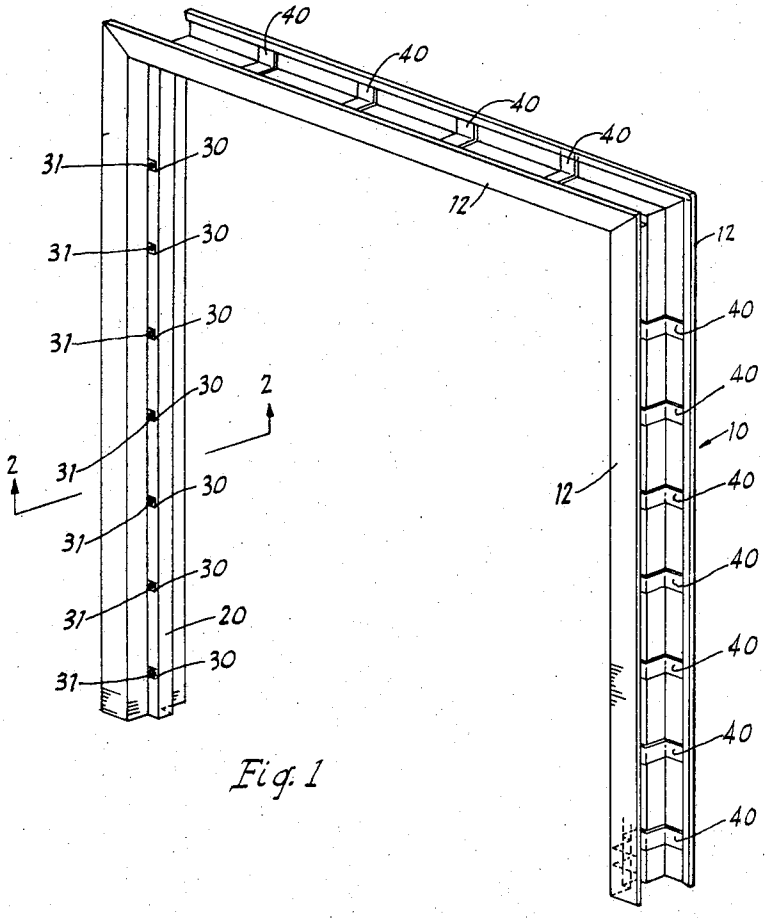


Fig. 1

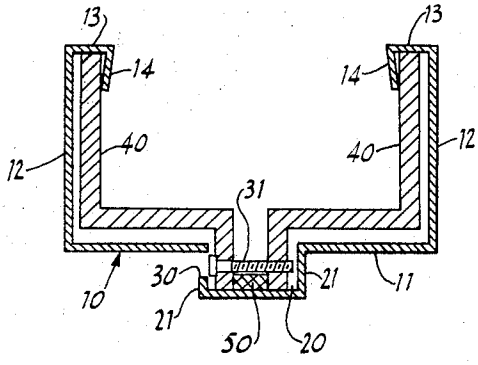


Fig. 2.

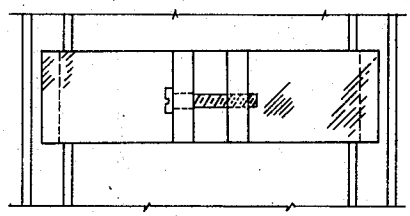


Fig. 3.

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DOOR FRAME FASTENING DEVICE

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The present invention relates to a wall buck which serves as a trim in door and window openings in the walls of buildings.

Many conventional metal wall bucks or trim have heretofore been made of a one-piece frame construction. With this type of wall buck it has been necessary to erect the buck and then complete the wall around it. It is a costly and time consuming procedure. In addition, many problems have arisen in the application of a one-piece buck to a finished wall, having an existing opening or any opening made after the wall construction is completed. Therefore, a field assembled frame comprising several parts has been used as the wall buck. However, difficulties and problems are encountered in attempting to securely anchor the field assembled frame to a wall, furthermore it is necessary to use many additional parts and accessories in the erection of the field assembled frame construction.

It is therefore an object of the present invention to provide a wall buck which may be applied around a finished wall with an existing opening or any opening made after the wall construction has been completed but which, nevertheless, may be easily installed and firmly anchored to the wall without any difficulty.

A further object of the present invention is to provide a wall buck which is adapted to fit around existing wall openings of varying widths.

A feature of the present invention is the provision of a wall buck which may be installed by a clamping action against the wall faces adjacent the opening in the wall.

Another feature of the present invention is the provision of a wall buck which can be readily removed without damage to the wall or to the component parts.

A wall buck constructed in accordance with the present invention includes a channel of U-shaped cross-section having a recess of U-shaped cross-section in the base of the channel. One of the side portions of the recess has a plurality of openings at prescribed points along its length. This wall buck also includes a plurality of reinforcing members positioned along the length of the channel and the recess at points aligned with the openings in the recess. The reinforcing members are engaged and the side portions are in spaced relationship to each other and engage the reinforcing members. The wall buck of the invention further includes means inserted through the openings in the recess engaging the reinforcing members for drawing the reinforcing members together.

Other objects, advantages and details of an embodiment of the concept of the present invention are shown in the following specification taken in conjunction with the drawing in which:

FIG. 1 is a perspective view of a wall buck constructed in accordance with the present invention applied to a door opening in a wall;

FIG. 2 is a sectional view taken along line 2—2 of FIG. 1; and

FIG. 3 is a side view of a portion of the wall buck shown in FIG. 1.

Referring to the drawing, a wall buck constructed in accordance with the present invention includes a channel 10 of U-shaped cross-section having a recess 20 of U-shaped cross-section in the base 11 of the channel. One of the side portions 21, 21 of the recess 20 has a plurality of openings 30 at prescribed points along its length. The

channel 10 has two side portions 12, 12 which extend perpendicular to the base portion 11.

The wall buck constructed in accordance with the present invention further includes a plurality of reinforcing members 40 positioned along the length of the channel 10 and the recess 20 at points aligned with the openings 30 in the recess. The reinforcing members 40 are shown as opposed pairs having one end thereof engaged by the side portions 12, 12 of the channel 10 with the other ends thereof extending into the recess 20 in opposed spaced relationship. In particular, the free ends of the side portions 12, 12 of the channel 10 are formed into channels having terminal edges 13, 13 and re-entrant flanges 14, 14. Each of the reinforcing members is preferably shaped so as to have a first portion which extends parallel to the side portions of the U-shaped channel 10, a second portion which extends parallel to the base 11 of the channel, and a third portion which extends parallel to the side portions 21 of the U-shaped recess 20. As will be brought out below, in the installation of the wall buck, the reinforcing members 40 bear against the inside surfaces of the re-entrant flanges 14, 14. While the bearing pressure created during and after installation will insure that the reinforcing members 40 do not slide or move from their desired positions, it may be preferable to provide some means for permanently securing the reinforcing members 40 to the re-entrant flanges.

The opposed portions of the reinforcing members 40 which extend into the recess 20 are held apart in spaced relationship and prevented from being drawn together. For the embodiment shown in the drawings, a fulcrum block 50 affixed to the base 22 of the recess, and positioned between the opposed portions of the reinforcing members serves to prevent the free ends from being drawn together.

A wall buck constructed in accordance with the present invention additionally includes means inserted through the openings 30 in the recess 20 engaging the reinforcing members 40 for drawing the reinforcing members together. Such means may include a plurality of bolts 31 which are inserted through the openings 30 and engage threaded bores provided in the reinforcing members 40 which are aligned with the openings 30. As the bolts 31 are turned, opposed pairs of reinforcing members 40 are drawn together in the nature of a pivoting action with the free ends of the reinforcing members being prevented from being drawn together by the fulcrum block 50. The effect of this pivoting motion is to force the upper ends of the reinforcing members 40 against the re-entrant flanges 14, thereby drawing the side portions 12 of the channel 10 inward to the wall to which the buck is to be applied.

The simplicity of operation is readily apparent. In installation it is only necessary to slip the wall buck in position over the opening in the wall and to tighten the bolts.

This action causes movement of the reinforcing members 40 which is transmitted as aforesaid to the side portions 12 of the channel 10 to cause them to move toward the wall.

The invention, while described in connection with a door construction, is not limited thereto for it is equally applicable to window casings and other similar structures.

The foregoing description and illustration merely constitutes one embodiment of the present invention and is not to be considered as in any way limiting the scope thereof which is defined in the appended claims.

I claim:

1. A wall buck comprising: a channel of U-shaped cross-section having a base and two side portions, the

free ends of each of said side portions formed into channels; a recess of U-shaped cross-section in the base of said U-shaped channel, one of the side portions of said recess having a plurality of openings at prescribed points along its length; a plurality of opposed pairs of reinforcing members positioned along the length of said U-shaped channel and said recess at points aligned with said openings in said recess, one member of each pair having one end thereof inserted into the channel formed at the free end of one of said side portions of said U-shaped channel and the other member of each pair having one end thereof inserted into the channel formed at the free end of the other of said side portions of said U-shaped channel, the free ends of said pairs of reinforcing members extending into said recess in opposed spaced relationship; means interposed between said opposed free ends of said reinforcing members for preventing said free ends of said reinforcing members from being drawn together; and means inserted through said openings in said recess engaging said pairs of reinforcing members for drawing opposed pairs of reinforcing members together.

2. A wall buck according to claim 1 wherein opposed pairs of reinforcing members are provided with threaded bores aligned with the openings in the recess and a plurality of bolts inserted through the openings in the recess engage the threaded bores, whereby opposed pairs of reinforcing members are drawn together upon a turning of the bolts.

3. A wall buck according to claim 1 wherein a fulcrum block is affixed to the base of the recess between the opposed free ends of the reinforcing members for preventing the free ends of the reinforcing members from being drawn together.

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