Feb. 20, 1968 J. C. WHEELER 3,369,333

CLAMP FOR HEADER BRACE

Filed March 1, 1966

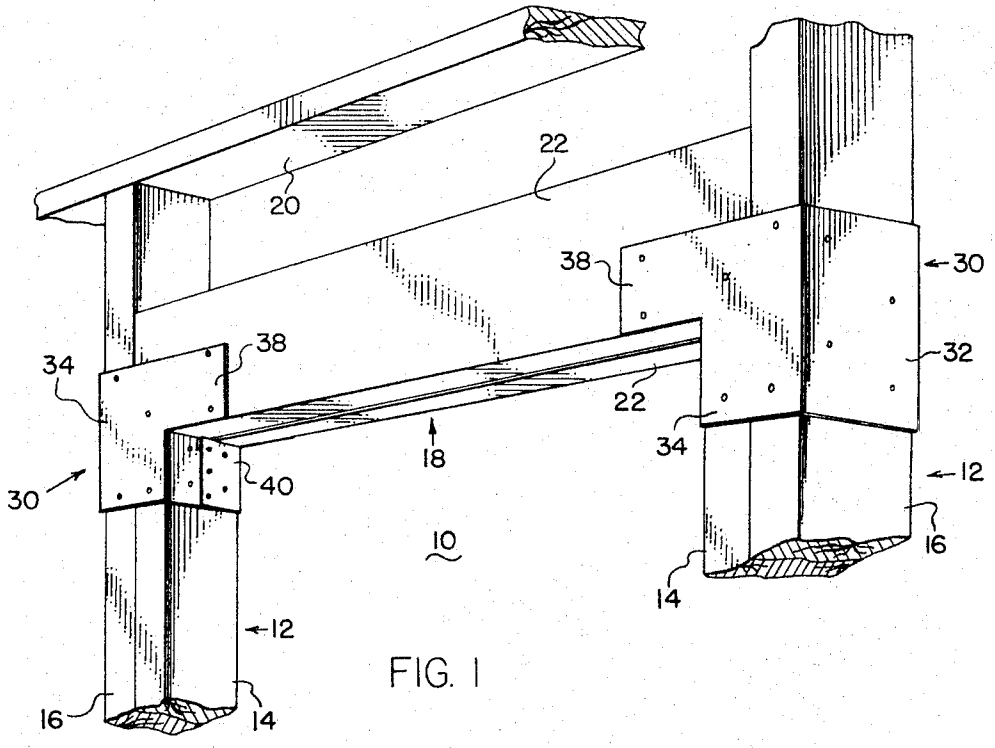
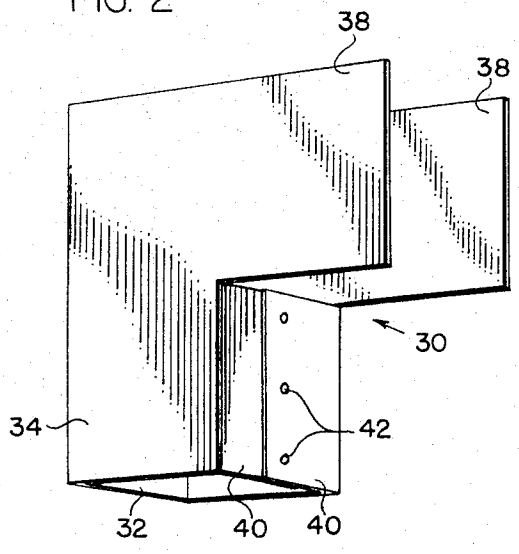


FIG. 1

FIG. 2



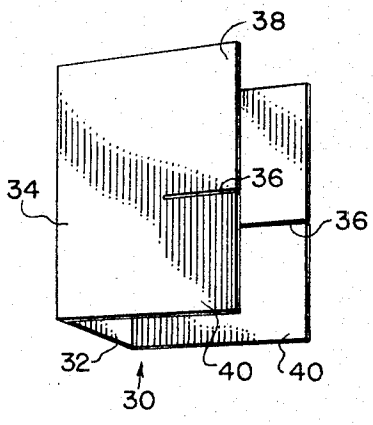


FIG. 3

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CLAMP FOR HEADER BRACE

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ABSTRACT OF THE DISCLOSURE

Wooden frame structure is reinforced at a "header" over a door by a sheet metal box which encircles the post and extends over the header.

This invention relates to carpentry, particularly to construction of wooden frame structures and, more particularly, to header braces for doors or windows.

In the construction of houses, difficulty is often experienced with warping and subsequent twisting of the framing at the upper corners of doors and windows, resulting in cracking of plaster or other wall covering.

This invention solves the problem by providing a sheet metal brace for this joint to maintain the elements rigidly in the proper position.

An object of this invention is to provide a brace for headers in wooden frame construction.

Other objects are to achieve the above with a device that is sturdy, compact, durable, simple, safe, versatile, and reliable, yet inexpensive and easy to manufacture and install.

The specific nature of the invention, as well as other objects, uses, and advantages thereof, will clearly appear from the following description and from the accompanying drawing, the different views of which are not necessarily to the same scale, in which:

FIG. 1 is a perspective view of an embodiment of the invention in use.

FIG. 2 is a perspective view of one embodiment of the invention before installation.

FIG. 3 is a perspective view of an embodiment of the invention partially formed.

Referring more specifically to the drawing, one may see represented there the framing of a door opening **10**.

The framing includes vertical door posts **12** on either side of the opening **10**. Each post includes two rectangular studs **14** and **16**. Inside or short stud **14** extends from the floor to beneath header **18** and the outside or long stud **16** extends from the floor to plate **20**. The flat sides of the studs are nailed together.

The header **18** includes two rectangular beams **22** with their flat sides nailed together with spacer blocks (not shown) between them so that the thickness of the header **18** is equal to the width of the studs **14** and **16**. The beams **22** are set on edge on top the short stud **14** for support and abut the long stud **16**. Each beam **22** is nailed to both studs.

Brace **30** is made of a single piece of sheet metal and is generally box-shaped. The back **32** of the brace **30** is nailed to the outside of the outside stud **16** (thus to the outside of the post **12**) at the header **18**. The sides **34** of the box are nailed to each side of the post **12** which is the edge of the two studs **14** and **16**. Each of the sides **34** has a cut or slot **36** in it, forming two tabs **38** and **40** on each side. The slots are at right angles or normal to the sides. The slots **36** are at the bottom of the header **18**.

The upper tabs **38** extend as wings along each of the sides of the header **18** and are securely nailed thereto. The lower tabs **40** are folded over the inside of the inside stud **14** and overlap. Thus the lower tabs form enveloping wings around the post **12**. The tabs **40** may be spot-welded at **42** of the overlap.

The brace box **30** is securely nailed to each stud **14** and **16** and each beam **22**. Each side of the door opening **10** has such a brace between the post **12** and header **18**.

It may be seen that the brace **30** is readily constructed from a rectangular piece of sheet metal. The slots **36** are cut from each side normal to the side and aligned with each other. The uncut length between the slots is equal to the width of the stud **16** (which is also the width of stud **14**) plus twice the combined breadth of the studs **14** and **16**.

Analysis of the brace **30** will be shown that it provides maximum reinforcement for the joint between the posts **12** and header **18**, minimizing the twisting resulting from warping of the member.

It will be apparent that the embodiment shown is only exemplary and that various modifications can be made in construction, materials, and arrangement within the scope of the invention as defined in the appended claims.

I claim as my invention:

1. In a wooden frame structure having
(a) an opening, such as a door,
(b) an upright wooden post on either side nailed to an upper plate member, and
(c) a wooden header forming the top of the opening nailed to the posts,
(d) an improved brace for preventing twisting of the wooden members, comprising in combination with the above:
(e) a sheet metal box
(f) extending on the outside of each post at the header and
(g) folded along each side of the post,
(h) said box having wings which extend from the sides of the post along each side of the header,
(j) said box also having enveloping wings extending around the inside of the post below the header,
(k) said box securely nailed to said post and header,
(m) each post having an identical brace,
(n) each post including two studs of rectangular cross section,
(i) the inside stud terminating under the header and
(ii) the outer stud extending upward to the plate,
(o) the header including two beams of rectangular cross section,
(i) each set on edge on top the inside stud and
(ii) each abutting the outside stud, and
(p) the brace box made from a rectangular piece of sheet metal having
(i) two slots cut, one on each side, normal to each side and aligned with each other, thus forming four tabs,
(ii) the uncut portion between the slots being of a length equal to the width of the stud plus the combined breadth,
(q) so that said tabs form the afore-described wings.

2. The invention as defined in claim **1** wherein
(r) the enveloping wings overlap and are welded together at the overlap on the inside of the post.

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