Aug. 22, 1939. L. F. EMIGHOLZ 2,170,635

COMBINED REINFORCE ELEMENT AND SUPPORT

Filed Dec. 6, 1937

Fig. 1

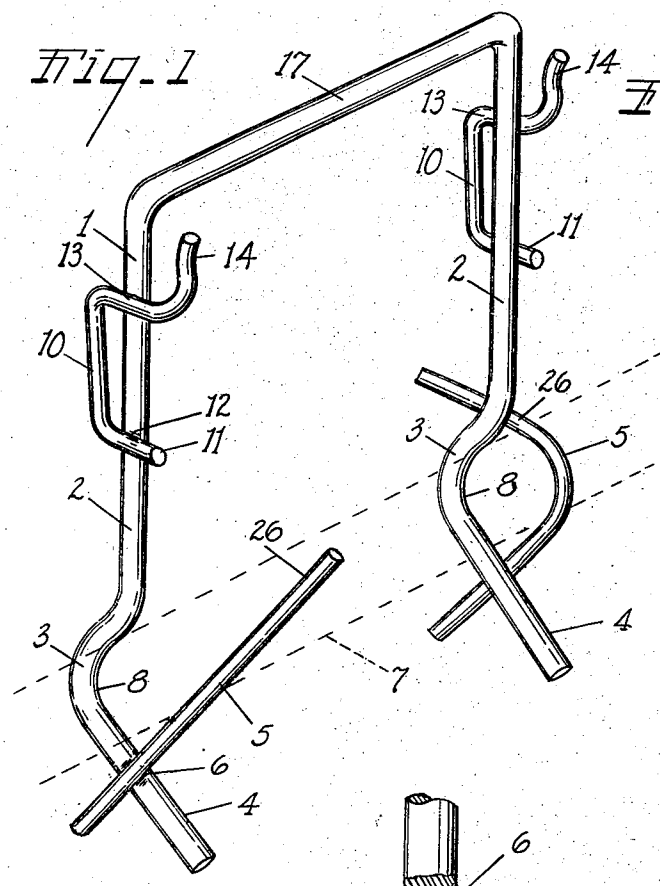
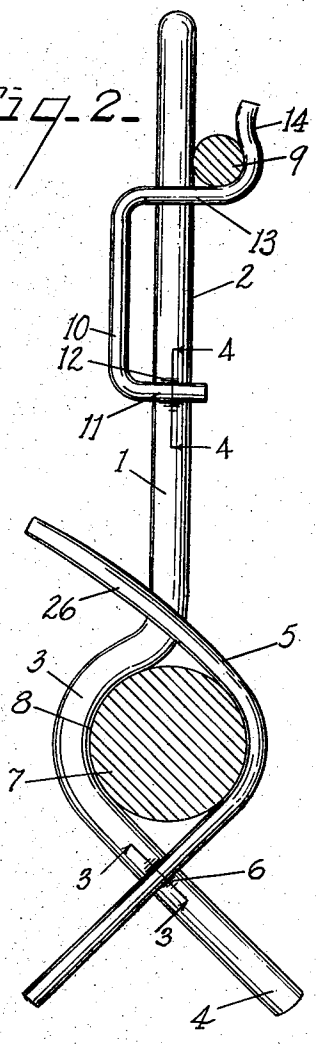


Fig. 2



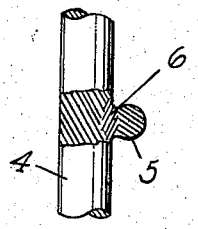


Fig. 3

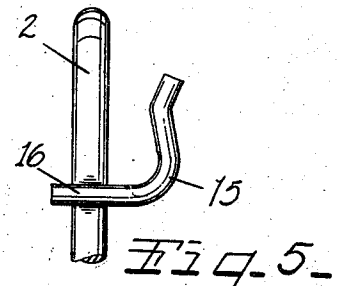


Fig. 5

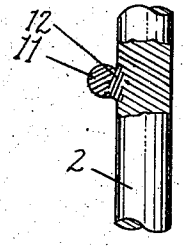


Fig. 4

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COMBINED REINFORCE ELEMENT AND SUPPORT

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7 Claims. (Cl. 72—122)

This invention relates to improvements in combined reinforce element and support.

The main objects of this invention are:

First, to provide a combined reinforce element and reinforce bar support which is well adapted for use in joists, sills and the like, either precast or otherwise.

Second, to provide a combined reinforce element and reinforce bar support which, when properly placed in a joist beam or the like, is highly effective as a reinforce element, and with which the reinforce bars may be quickly assembled.

Objects pertaining to details and economies of my invention will definitely appear from the description to follow. The invention is defined in the claims.

A structure which embodies the features of my invention is clearly illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of my combined reinforce element and reinforce bar support, a reinforce bar being shown by dotted lines in operative relation thereto and one of the reinforce bar holders being bent to clamping position, the other being in its open position.

Fig. 2 is an enlarged end elevation of my improved combined reinforce element and support with a pair of reinforce bars shown in section therein.

Fig. 3 is an enlarged fragmentary view partially in section on line 3—3 of Fig. 2.

Fig. 4 is an enlarged detail view partially in section on line 4—4 of Fig. 2.

Fig. 5 is a fragmentary end elevation of a slightly modified form or embodiment of my invention.

Referring to the drawing, my combined reinforce element and reinforce bar support comprises a yoke-shaped or inverted U shaped upright 1, the arms 2 of which are provided with bends or offsets 3 adjacent the lower ends thereof, the lower ends of the arms below these bends being angularly disposed providing legs 4.

The combined leg and reinforce bar holders 5 are disposed angularly across the legs 4 and welded thereto at 6 or otherwise fixedly secured to the legs 4. These members 5 are of such length and of such material that their upper ends 26 can be bent around a reinforce bar 7 after it has been placed in position in the seat 8 provided by the bend 3. Above the seats 8 I provide clips 10 for other reinforcing bars as 9, these clips 10 in the preferred embodiment being of U shape disposed with their arms transversely across the arms of the upright. The lower arms 11 of the clips are welded to the arms of the upright at 12, see Fig. 4, leaving their upper arms 13 free for springing movement.

The arms 13 terminate in upwardly projecting fingers 14 which provide seats or clamping members for the bar 9, clamping it against the sides of the arms 2 of the upright. The arms 14 are preferably shaped so that the bar 9 can be snapped into place by a downward pressure against the side of the upright arms 2.

In the embodiment shown in Fig. 5 the clips 15 are angular, the arms 16 thereof being welded to the upright arms 2. While this provides an effective support it is more difficult to snap the reinforce bars 9 into position and more stress is placed upon the welded joint.

I have not illustrated the arrangement of the elements in a joist as it is believed that will be understood by those skilled in the art, it being common engineering practice to provide joist and like structural parts with reinforcing elements and to position them where most effective to resist stresses on the joist. The bight portions 17 may protrude from the joist or beam to constitute anchoring or attaching means for other structural parts.

I have illustrated and described my invention in a very practical embodiment thereof. I have not attempted to show certain modifications and adaptations which might be desirable for special work.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. A combined reinforce element and support comprising an inverted U shaped upright having offsets in its arms adjacent the lower ends thereof providing reinforce bar seats, the arms below said offsets being angularly disposed providing legs, combined leg members and reinforce bar holders disposed angularly across said first named legs and welded thereto, and being bendable to clamp a reinforce bar in said seats in said upright arms, and U-shaped reinforce bar clips disposed with their arms transversely of the arms of said upright, the lower arms of said clips being welded to the arms of said upright, the upper arms of said clips terminating in upturned fingers cooperating with said upright arms to support a reinforce bar.

2. A combined reinforce element and support comprising an inverted U-shaped upright having offsets in its arms adjacent the lower ends thereof providing reinforce bar seats, the arms below

said offsets being angularly disposed providing legs, and combined leg members and reinforce bar holders disposed angularly across said first named legs and welded thereto, and being bendable to clamp a reinforce bar in said seats in said upright arms.

3. A combined reinforce element and support comprising upright provided with a pair of connected arms, said upright having bends in its arms adjacent but spaced from the lower ends thereof providing reinforce bar seats and angularly disposed legs, and combined leg members and bar holders disposed angularly of said first named legs and secured thereto and coacting with said bends in the arms of said upright to provide reinforce bar seats and with said legs to support said upright.

4. A structure of the class described comprising an inverted U shaped upright having the lower ends of its arms disposed angularly providing legs, combined leg members and reinforce bar holders disposed angularly across said first named legs, and a reinforce bar clip welded to an arm of said upright and terminating in an upturned finger cooperating with said upright arm to support a reinforce bar.

5. A structure of the class described comprising an inverted U shaped upright having the lower ends of its arms disposed angularly providing legs, and combined leg members and reinforce bar holders disposed angularly across said first named legs with the point of intersection of the leg members and legs in spaced relation to the ends thereof.

6. A structure of the class described comprising upright provided with a pair of connected arms, said upright having the lower ends of its arms disposed angularly providing legs, and combined leg members and reinforce bar holders disposed angularly across said first named legs, said leg members intersecting the legs and being fixed thereto and being bendable to clamp a reinforce bar above the legs.

7. A structure of the class described comprising an inverted U shaped upright, the lower ends of its arms being angularly disposed providing legs, and combined leg members and bar holders disposed angularly across said first named legs at an angle to the plane of the upright and welded thereto and being bendable to clamp a reinforce bar to said upright.

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