May 27, 1924. 1,495,659

W. W. WILLIAMSON

CHAIR FOR REENFORCING STEEL

Filed Aug. 15, 1922

Fig. 1

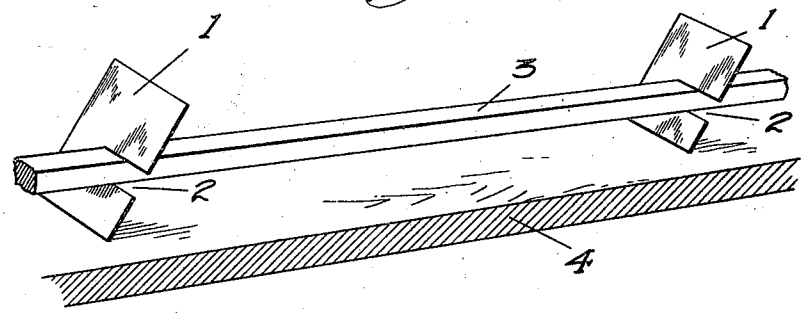


Fig. 2

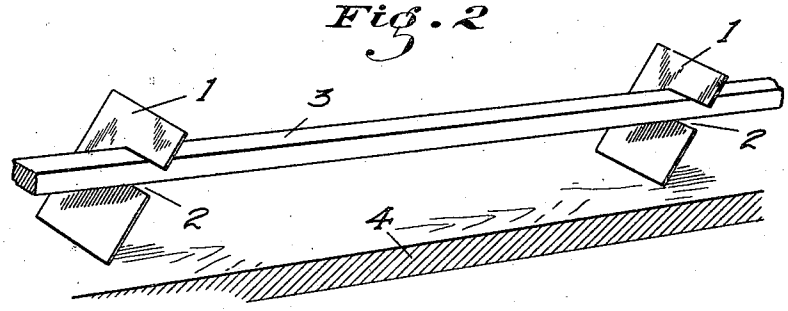


Fig. 3

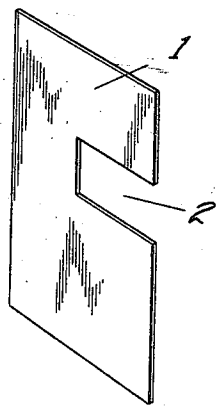


Fig. 4

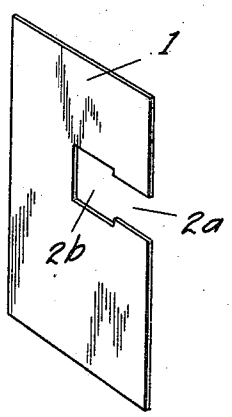
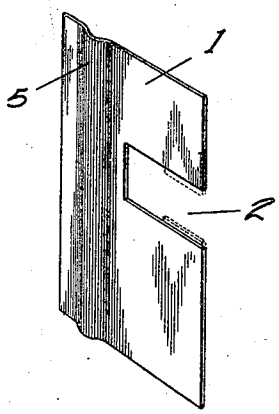


Fig. 5



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UNITED STATES PATENT OFFICE.

WILBUR W. WILLIAMSON, OF STOCKTON, CALIFORNIA.

CHAIR FOR REENFORCING STEEL.

Application filed August 15, 1922. Serial No. 581,914.

To all whom it may concern:

Be it known that I, WILBUR W. WILLIAMSON, a citizen of the United States, residing at Stockton, county of San Joaquin, State of California, have invented certain new and useful Improvements in Chairs for Reenforcing Steel; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this application.

This invention relates to improvements in devices for supporting reenforcing bars such as are used in reinforced concrete construction from the mold in which the concrete is poured.

The principal object of my invention is to provide a device for supporting the bars at desired intervals, in such a manner that the bars will be maintained at the same level from the mold throughout the length; which is proof against being disturbed by the pouring of the concrete, and which also firmly holds the bars from movement with such pouring.

Another object is to provide a device for the purpose so constructed that a single size of the device may be used for supporting bars used either in slab work or beams—two forms of construction in which accepted practice demands that the reenforcing steel be held at different distances from the mold, or what in the finished result becomes the outer surface of the slab or beam.

The chairs are also formed so that they may be placed in their proper positions after the steel is in place, and which permit of an unobstructed flow of the concrete under the steel.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purposes for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views.

Fig. 1. is a perspective view of a length of reenforcing bar showing the application of my improved chair thereto when said bar is used in slab work.

Fig. 2. is a similar view, showing the position of the chairs when the bar is used in a beam. Figs. 3, 4 and 5 are perspective views of different forms of chairs.

Referring now more particularly to the characters of reference on the drawings, the device in all forms consists of a rectangular metal plate 1 of suitable dimensions cut in one side of which an uneven distance from the ends is a rectangular recess 2 to receive therein a standard square bar of reenforcing steel 3, there being one size of chair for each size of bar.

The horizontal extent of the recess 2 is somewhat greater than a side of the bar, while the height of said recess is sufficiently greater than that of the bar so that the chair, when positioned, will rest at an angle of the recess relative to the upper and lower ends of the chair is so proportioned that when said chair is positioned about the bar, with its short end down, and resting at the above named angle, the vertical distance from the under face of the bar to the adjacent face of the mold 4, on which the chairs rest will be the correct distance which the bar should be from the mold in slab work.

Similarly, when the chairs are reversed in position, the greater height at which the bars are there supported from the mold will be correct for beam work.

In the type of chair shown particularly in Fig. 3, the height of the recess is the same throughout its extent. In the type illustrated in Fig. 4, the recess for a portion of its length adjacent its outer end is of just sufficient height as at 2^a to receive the bar therethrough when the bar is held at right angles to the chair. The inner portion 2^b of the recess however, is of sufficiently greater depth than the portion 2^a so for a length slightly greater than the length of a side of the bar, and of sufficiently greater height than the bar and portion 2^a so that the chair will rest at the above named angle to the bar.

With either type, this positioning of the chair at an angle serves to form a wedge fit with the bar, firmly holding the same against displacement relative thereto.

Additional safeguard against lateral

movement of the bar in the chair is provided in the type just above described, in which the enlarged recess portion 2^b forms a seat for the bar in addition to the wedging feature.

If desired, especially for use with heavy steel, the chairs, in order to prevent them being possibly bent with the weight of the bars resting thereon, may be provided with a rib 5 extending from top to bottom to one side of the bar-recess, as shown in Fig. 5.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

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

1. A bar supporting chair consisting of a flat plate provided with a recess in one side of greater height than the thickness of the bar to be received therein; the ends of the plate being clear of the bar whereby the plate will rest at an angle to the bar and the upper and lower edges of the recess will impinge against the bar.

2. A bar supporting chair consisting of a flat plate either of whose end edges is adapted to rest on a mold; said plate having a side recess to receive a bar therein.

In testimony whereof I affix my signature.

WILBUR W. WILLIAMSON.