W. E. WHITE.

RIB CHAIR.

APPLICATION FILED MAR. 14, 1921.

1,410,633. Patented Mar. 28, 1922.

Fig. 1

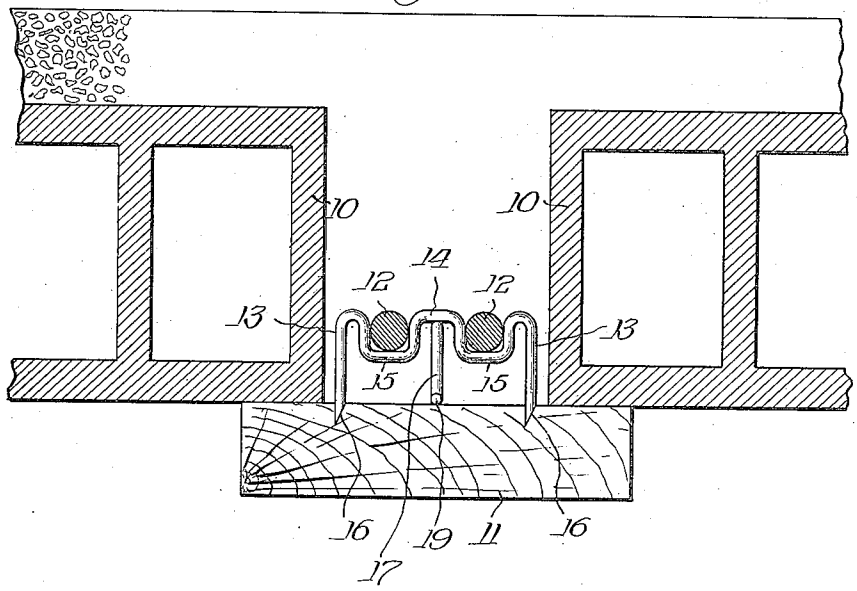


Fig. 2

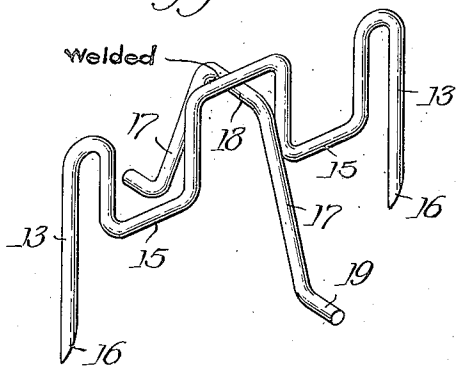


Fig. 4

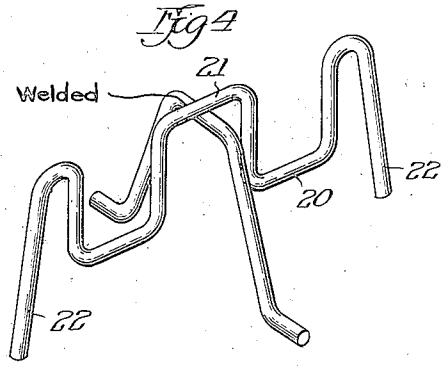
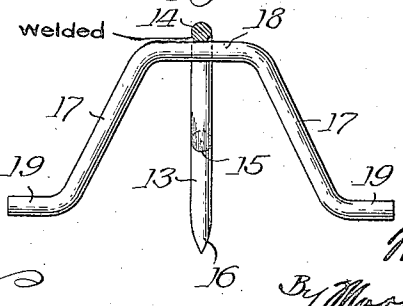


Fig. 3.



Witness:

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RIB CHAIR.

1,410,633. Specification of Letters Patent. Patented Mar. 28, 1922.

Application filed March 14, 1921. Serial No. 451,968.

To all whom it may concern:

Be it known that I, WILLIAM E. WHITE, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Rib Chair, of which the following is a specification.

My invention relates to concrete reinforcing devices and particularly to a chair or support for reinforcing bars adapted to be located in concrete ribs or beams.

It is necessary in the formation of concrete structures to provide suitable means for supporting and spacing the reinforcing elements therefor. One of the objects of the present invention is to provide a device of relatively simple form and which shall possess the requisite stability. Another object is to construct such a device entirely of wire, the parts being so disposed as to furnish requisite strength with a minimum of metal.

The device contemplated hereby consists essentially of a member which acts as a spacing element and contributes to the support of the bars held thereby, and a second element in the form of a V-shaped member located intermediate the ends of the first element and which combines the functions of supporting and stabilizing the structure.

The invention will be more readily understood by reference to the accompanying drawings, wherein,

Fig. 1 is a sectional view showing the device of my invention in elevation;

Fig. 2 is a perspective view thereof;

Fig. 3 is a transverse sectional view; and

Fig. 4 is a perspective view of a modification of the structure.

In the drawings it will be seen that the device is shown in position between a pair of tiles 10, supported on a plank 11, which serves to close the lower opening between the tiles. The plank serves also to define the lower surface of the rib or beam of concrete which is formed between the tiles. A pair of reinforcing bars 12 are shown in a desired situation in the rib, the bars being held in proper position relative to the sides and bottom of the rib or beam by the chair of my invention. This chair comprises two elements, the first consisting of a single length of wire having vertical legs 13, and an intermediate connecting member 14, provided with saddles or offset portions 15, which constitute seats for the reinforcing bars. The legs 13 may have pointed or sharpened extremities 16, as shown in Fig. 1, if desired, these being adapted to be forced into the wooden element 11 which acts as one member of the form, although this is not essential so far as the practical working of the device is concerned. The second element of the structure consists of an inverted V-shaped member the legs 17 of which extend at an obtuse angle from a transverse connecting member 18. The V-shaped member is welded to the intermediate member 14 of the first element at a point midway between the ends of both of the connecting members 14—18. The legs 17 are provided, in the form shown, with feet 19, extending parallel to the surface of the form.

In the form shown in Fig. 4, the parts of the first element are the same and include saddles 20, an intermediate portion 21 and legs 22, the latter however extending diagonally instead of vertically as in the structure just described. The second or supporting element is identical with that shown in Figs. 1 to 3. It will be noted that the construction of Fig. 4 is merely a development of the structure shown in Fig. 2, the vertical legs of the latter having the capability of being bent into a diagonal position when being installed in order to substantially exactly span the space between the sides of the form, which sides, in this instance, are constituted by the tiles 10.

A construction such as described may be very cheaply manufactured. The formation of the wire spacing element is a simple machine operation and if the ends are to be pointed it may be accomplished by severing the respective sections of wire at an angle. The welding is accomplished by the electric process and may be carried out at a very low cost. The device is light and stable, and furnishes but little obstruction to the flow of concrete therearound. The disposition of the supporting and stabilizing V-shaped legs is such as to furnish a maximum of resistance to a superimposed weight and the structure will not be distorted in the event it is stepped upon by a workman.

The device herein described is an improvement upon that shown in my application Serial No. 408,294, filed September 4th, 1920.

Obviously the invention is capable of some modification and I do not wish to be limited except as indicated in the appended claims.

I claim:

1. A chair comprising in combination, a single length of wire bent to provide downwardly extending legs at its ends and seats in its intermediate portion, and a V-shaped stabilizing element secured to the first element at a point midway between the ends thereof and provided with portions extending laterally of the length of wire and positioned to contact a form.

2. In a rib chair, the combination of a spacing element consisting of a single length of wire bent to provide single downwardly extending legs at the ends thereof and bar seats in its intermediate portion, and a supporting element comprising a V-shaped member welded to the spacing element at a point substantially midway between the ends of the latter and provided with portions extending laterally of the length of wire and positioned to contact a form.

3. In a rib chair, the combination of a length of wire bent to occupy a single plane and provided with legs at its ends and seats in its intermediate portion, and a pair of legs extending transverse of the plane of the spacing element and welded to the latter at a point midway between the ends thereof.

4. In a chair for ribs and beams, the combination of a spacing element having end legs and intermediate seats, all the parts of said element being in a single plane, and a V-shaped member secured to said first mentioned element at a point intermediate the ends thereof and provided with portions extending laterally of the length of wire and positioned to contact a form.

5. In a device of the class described, the combination of a spacing element comprising downwardly extending legs having sharpened extremities and an intermediate portion providing seats, and a V-shaped member welded to said spacing element at a point midway between the ends of the latter and provided with portions extending laterally of the length of wire and positioned to contact a form.

Signed at Chicago, Illinois, this 10th day of March, 1921.

WILLIAM E. WHITE