Nov. 12, 1929. W. E. WHITE 1,735,592

MAT CHAIR

Filed June 8, 1929

Fig. 1.

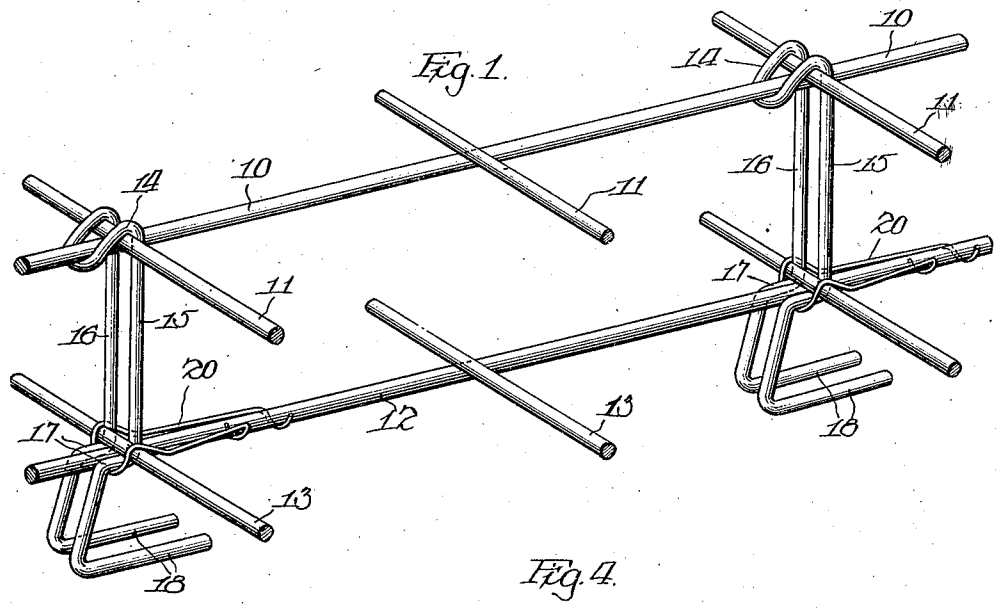


Fig. 2.

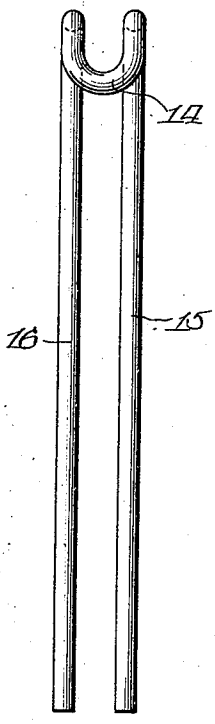


Fig. 3.

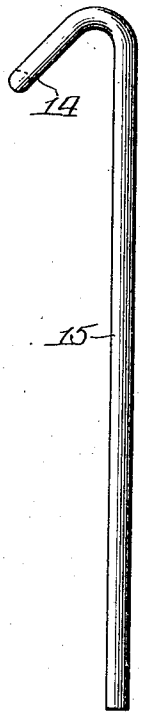
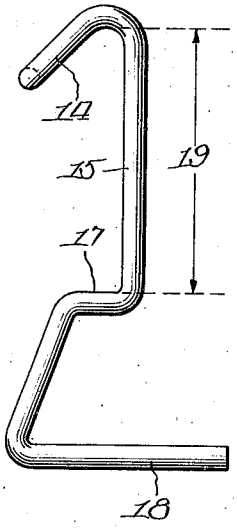


Fig. 4.



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UNITED STATES PATENT OFFICE

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MAT CHAIR

Application filed June 8, 1929. Serial No. 369,436.

My invention relates to concrete reinforcement and particularly to a novel chair adapted to support reinforcing mats for road reinforcement.

An object of my invention is to provide simple and effective means for supporting and spacing apart the two layers of a two-layer mat of reinforcing rods. Mats of this character to be effective must be supported at substantially an exact point relative to the top and bottom surfaces of the concrete slab, the supporting means resting on the underlying soil of the roadway. A chair having a substantial base area is therefore an important requisite.

While the extent of the elevation of the mat above the soil is substantially constant in all parts of the country, the vertical spacing of the two layers of bars varies materially and a chair has been devised that may be constructed with a minimum of change in the automatic machinery for variations in bar spacings.

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

Fig. 1 is a perspective view of a plurality of bars and chairs in the vertical position;

Figs. 2 and 3 are front and side views respectively of the wire rod following a preliminary step in the construction of the chair; and

Fig. 4 is a side view of the finished chair.

In the drawings, I have illustrated a mat consisting of an upper layer of bars 10—11 and a corresponding lower layer 12—13 forming the usual duplicate lever reinforcing mat.

The chair of my invention consists of a length of heavy wire rod doubled on itself to form a loop the closed end of the loop being rebent at an acute angle to form the hook portion 14. This portion as clearly shown in Fig. 1 constitutes the means for holding a pair of crossed bars 10—11. In other words, one bar 10 is received in the eye of the loop and is rigidly supported against vertical and lateral displacement while the bar 11 is supported on the bar 10 and held against lateral movement by the adjacent legs of the body portion.

The two legs 15—16 in an intermediate stage of construction are straight as shown in Figs. 2 and 3, but in a later operation are bent to provide the seat 17 and the feet 18. It will be seen that the only variation necessary to adapt the chair to different spacings between the layers of bars is to vary the dimension 19, indicated in Fig. 4, and this dimension may be changed freely without material change in the automatic wire machine adjustment.

In applying the chair to crossed bars in order to reach the position shown in Fig. 1, the open space between the feet is placed beneath the bar 10 at the left of the bar 11 and moved vertically until the hook 14 is stopped by the bar 10. The chair is then swung clock-wise into the position shown, the bar 12 passing between the legs and the bar 13 overlying the seat 17. In this position a spring clip 20 of common form is used as a fastening means, the clip serving merely as a means for preventing accidental displacement but subjected to no load when the chair is in position. It is of course apparent that any wire tie might be utilized at this point instead of the spring tie that is shown. A chair of this character may be made of heavy gauge wire and be of rugged character thus insuring stability of the mat after it has been placed in position.

I claim:

1. A chair consisting of a length of heavy wire doubled on itself to form a loop the closed end of the loop being bent backward at an acute angle relative to the body of the loop, the said body being bent at a point between its ends to provide a horizontal seat, and the lower end of the body being bent to terminate in horizontal portions acting as supporting feet.

2. A road mat consisting of two layers of cross reinforcing rods and a chair at the intersections of the rods of each layer, said chair consisting of a length of wire doubled on itself to form a loop with the closed end of the loop bent to form a hook, said hook being adapted to interlock with and hold the crossed bars of the upper layer of bars the intermediate portion of the wire being bent to provide

a horizontal portion and the lower portion to provide supporting feet, and means cooperating with the chair at said seat for holding a pair of crossed bars of a lower layer.

3. A mat chair for double layer crossed bars consisting of a loop of wire the closed end of the loop being bent into a hook the two wires constituting the body portion being bent intermediate their ends to provide a horizontal seat the terminal portions of the wires being disposed to provide a pair of horizontal portions acting as feet.

4. A chair for double layer mats consisting of a length of heavy wire doubled on itself to form a loop the free ends of the wire constituting the body portions of the loop being of substantially equal length the closed end of the loop being bent backward at an acute angle, a horizontal seat provided by bending an intermediate portion of said body portion, the terminal portions of the wires being horizontally disposed at a point a substantial distance below said seat to act as supporting feet.

In testimony whereof I have affixed my signature.

WILLIAM E. WHITE.