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REENFORCING BAR CHAIR

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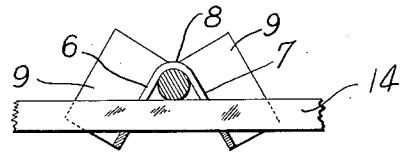


figure 3

figure 4

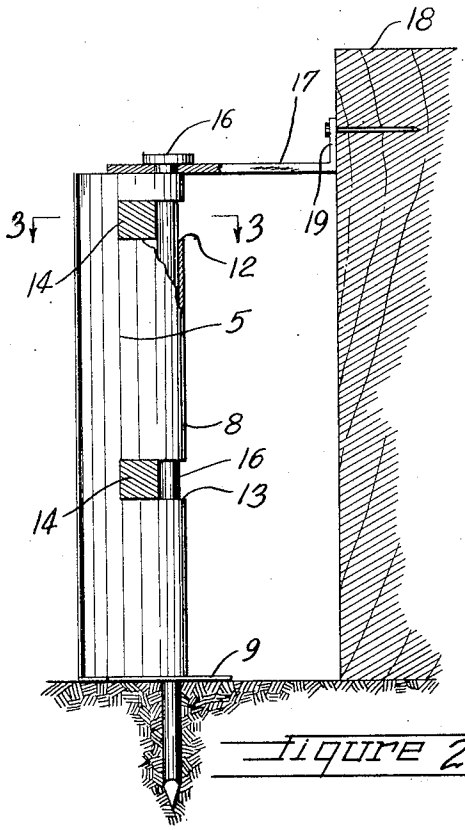


figure 2

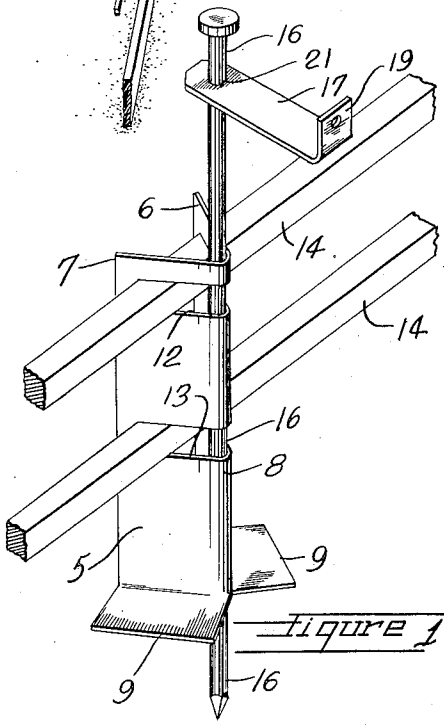


figure 1

INVENTOR.
HARMON L. RICHARDS
BY Joseph B. Gardner
ATTORNEY

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REENFORCING BAR CHAIR

Harmon L. Richards, Canyon, Calif.

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4 Claims. (Cl. 94—8)

The invention relates to a means commonly known as a chair, for supporting metal reenforcing in a mold for plastic material during the casting operation.

An object of the invention is to provide a chair of the character described which will serve to hold reenforcing bars or the like locked and rigidly fixed in desired position while cement or other plastic composition is being poured into the mold.

Another object of the invention is to provide a chair of the character described in which the means for supporting and securing the chair body in proper position in the mold, functions to lock the bars to the body.

A further object of the invention is to provide a supporting means, with the above mentioned features, which does not require any more parts than devices of this kind heretofore in use, nor does it require the deforming or other mutilation of the parts.

A still further object is to provide a device of the character described in which the means for obtaining the proper spacing of the chair in the mold is formed separate of the chair body but is arranged to be associated therewith by the means for securing the body to the mold.

The invention possesses other objects and features of advantage, some of which, with the foregoing, will be set forth in the following description of the preferred form of the invention which is illustrated in the drawing accompanying and forming part of the specification. It is to be understood, however, that variations in the showing made by the said drawing and description may be adopted within the scope of the invention as set forth in the claims.

Referring to said drawing:

Figure 1 is a perspective view of the complete device with reenforcing bars held therein.

Figure 2 is a vertical sectional view of the device as operatively positioned in a mold.

Figure 3 is a cross-sectional view taken on the line 3—3 of Figure 2.

Figure 4 is a perspective view of a series of concrete slabs formed to provide a highway surface and showing the arrangement of the chairs therein.

In the present embodiment, the device of my invention is adapted for use in supporting metal reenforcement in a mold during the formation of a concrete slab for a highway surface. The slabs thus used are usually constructed directly on the roadbed, and the mold therefor is ordinarily provided by the use of wooden or metal longitudinal strips at the sides, cross strips of expansible material at the ends, and the utilization of the upper surface of the road-bed as the bottom of the mold.

As illustrated in the drawing, the device comprises a body 5 arranged for upright positioning in the mold and formed of angularly related portions 6 and 7 integrally associated along one edge 8. Transverse extensions 9 project outwardly from the lower end of the portions 6 and 7 and serve as a resting or base plate for the body.

Formed in the body and extending transversely from the edge 8 are one or more slots 12 and 13 which define seats or recesses in each body portion for the reception of the reenforcement for the road slab. The reenforcement as here shown is in the form of metal bars 14 of rectangular cross section, and the slots are of such size and form that the bars may fit in the recess with the top, bottom and one side of each bar simultaneously engaging the top, bottom, and closed end of the recess. The recesses may be spaced vertically, as the conditions require, and with the bars thus disposed in the recesses they will be supported in proper spaced relation.

Means are provided for positively locking the bars in position in the body, and in such manner that no relative transverse movement of the bar in the body will be permitted in any direction. In the present embodiment said means is in the form of a pin 16 which serves the double purpose of locking the bars as aforesaid, and for securing the body in desired position in the mold. As shown in Figure 1, the pin 16 is of considerably greater length than the body and is arranged to extend completely through the body between the bars and the edge 8 so as to project considerably into the roadbed material as well as to lock the bars in place. The recesses are of such depth with relation to the thickness of the bars and the pin that the pin will fit snugly in place in the body and thereby hold the bars firmly against the inner end of the recess. In this manner, the bars will be engaged and locked in place on all four sides thereof and frictionally held against any movement in the body.

The pin 16 is also used in connection with a spacer clip 17 for holding the body in desired spaced relation to the side walls 18 of the mold. The clip 17, as will be clear from Figures 1 and 2, is provided at one end with an angular extension 19 which is perforated for the reception of a nail to secure the clip to the wall, while the other end is formed with an opening 21 for engagement with the pin. As will be clear from Figure 2 the pin is arranged to be driven in position with the head of the pin thrust against

the clip and securely holding the latter in place, and ordinarily the pin will be driven home with sufficient force to cause the longitudinally spaced portions along the edge 8 to be bent together and thereby cause each of the rods to be clamped as well as locked in position.

In applying the device in the mold, the body is first set in its approximately desired position on the road bed with the base portions 9 resting on the surface thereof. The reenforcing bars are then inserted into the recesses and set sufficiently inward therein to leave a space for the insertion of the holding pin between the bars and edge 8. The pin is then inserted through the spacer clip and through the body as aforesaid, the clip being then, or previously if desired, nailed or otherwise secured to the wall. With the parts thus set the pin is driven home thereby securely holding and locking all the parts together and to the mold whereby pouring of the concrete or other material in the mold will not dislodge the bars or displace the body relative to the mold.

I claim:

1. In a device of the character described, a body arranged to be held in a perpendicular position and comprising angularly related portions united along an upright edge and having a set of transversely aligned recesses extending inwardly from said edge and arranged to receive a reenforcing bar and carry the same in a substantially horizontal position, transversely extending base portions at the lower end of the body, a holding pin insertable from the upper end of the body between the inner side of said body and a side of said bar and arranged to retain said bar against the closed end of the recesses and to protrude from the base, and a head on said pin engageable with the upper end of the body.

2. In a reenforcing bar chair, a body having longitudinally spaced pockets opening at a side edge of the body and arranged for the reception of the bars, a base at one end of said body, a pin arranged to be driven through the body for securing same in position and holding the bars in the pockets, and means including a head on said pin positioned when the pin is driven home to engage the other end of the body spaced from said pockets whereby the support of said bars longitudinally of said body will be carried substantially entirely by said pockets and independent of the positioning of the body by means of said pin.

3. In a chair for positioning a reenforcing bar in a mold, a body having bar supporting portions, a spacer arranged for connection with a side of the mold for holding the body in position, and a pin arranged to be driven through the body and spacer for securing the bars and spacer to the body and for anchoring the body in place.

4. In a reenforcing bar chair, a body having longitudinally spaced pockets opening at a side edge of the body and arranged for the reception of the bars, a pin arranged to be extended through the body for securing same in position and holding the bars in the pockets, and means on the pin positioned when the pin is set in final operative position to engage a portion of the body longitudinally aligned with the pockets but spaced therefrom whereby the support of said bars longitudinally of the body will be afforded substantially entirely by said pockets.

HARMON L. RICHARDS.