June 12, 1928. 1,673,360

G. F. HAUF

BAR SUPPORT

Filed Aug. 26, 1925

Fig. 1.

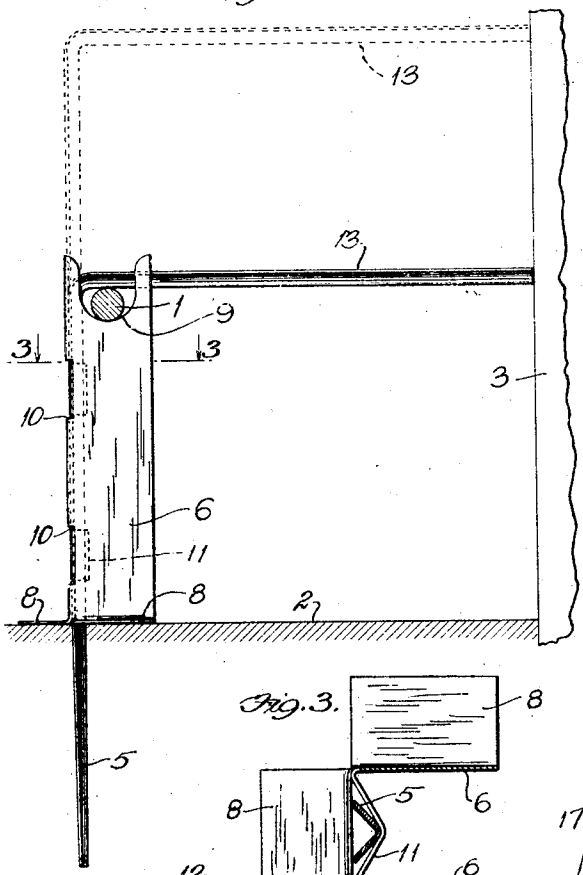


Fig. 2.

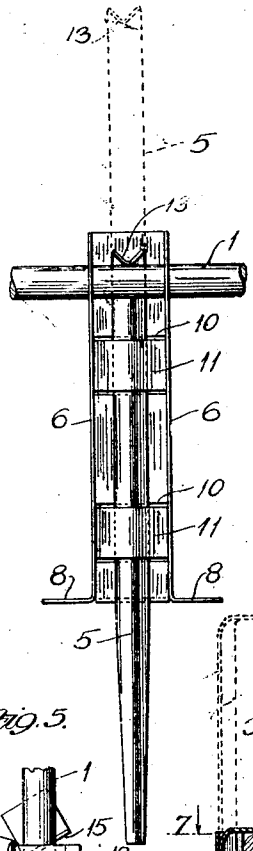


Fig. 3.

Fig. 5.

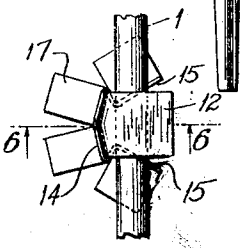


Fig. 6.

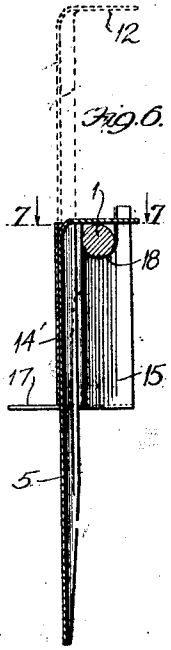


Fig. 4.

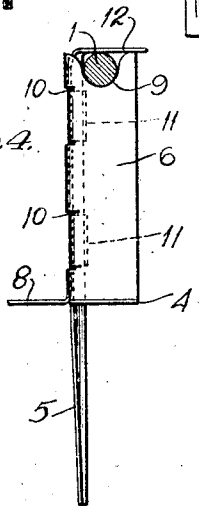
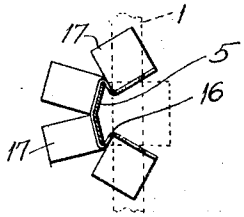


Fig. 7.



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UNITED STATES PATENT OFFICE.

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BAR SUPPORT.

Application filed August 26, 1925. Serial No. 52,572.

The main objects of this invention are to provide improved means for supporting reinforcing bars used in concrete construction work; to provide a bar support and spacer particularly adapted for use in road construction for supporting the bar above the ground and for spacing it from the side molds; to provide improved means for clamping the bar to the support and for securing the support in an upright position on the ground; to provide clamping means of this kind which also serves as a spacer for spacing the support from the side mold; and to provide a bar support of this kind which may be conveniently shifted along the ground preparatory to securing it in its final position so as to permit the bars to be readily and accurately adjusted.

Illustrative embodiments of this invention are shown in the accompanying drawing, wherein:—

Figure 1 is a side elevation of one of the bar supports and spacers in use, the dotted outline representing the extended position of the pin.

Fig. 2 is another side elevation of the same, taken from the right of Fig. 1.

Fig. 3 is a transverse section, taken on the line 3—3 of Fig. 1.

Fig. 4 is a side elevation of one of the improved bar supports without the spacing strip.

Fig. 5 is a plan of a modified form of bar support, showing a reinforcing bar supported thereon.

Fig. 6 is a central vertical section of the same, taken on the line 6—6 of Fig. 5.

Fig. 7 is a transverse section of the same, taken on the line 7—7 of Fig. 6.

In the forms shown, the improved bar supports are used for supporting reinforcing bars 1 which are embedded in the concrete a uniform distance from the ground 2. Certain of the bar supports, which support the outer rows of bars, are also provided with means for spacing the outer rows a uniform distance from the vertical side walls 3 which form the molds for the sides of the road.

In the specific constructions shown, the improved bar support and spacer comprises a chair adapted to be supported in an upright position on the ground and a vertically shiftable pin arranged to be driven into the ground for securing the chair thereon. Part of the pin is arranged to be moved into position for securing the reinforcing bar to the chair by the driving of the pin into the ground. Both the chair and pin may be sheet metal stampings, which are comparatively inexpensive and still of sufficient strength to withstand the strain to which they are likely to be subjected. The pin may be slidably supported on the chair by various means. The preferred construction is shown in Figs. 1 to 4 inclusive.

In the preferred construction, the improved bar support comprises a substantially channel-shaped chair 4 adapted to be supported on end and a vertically shiftable pin 5 arranged to be driven into the ground.

The channel-shaped chair 4 comprises a pair of side flanges 6 and a back web 7, which are bent outwardly at ther lower ends to provide supporting flanges 8, which are adapted to rest on the ground for securing the chairs against tilting while they are being set up. Formed in the upper ends of the side flanges 6, are recesses 9 which provide a seat for the reinforcing bar 1. A plurality of transverse slots 10, arranged in pairs, are formed in the back web 7, and the material between the slots of each pair is bent inwardly so as to form a guideway 11 for slidably supporting the pin 5. The slots 10 are cut slightly into the side flanges 6 so as to provide sufficient material between each pair of slots to permit the portions 11 to be bent away from the remainder of the back, as clearly shown in Fig. 3.

In the form shown, the pin 5 comprises a narrow strip of metal which is bent to substantially V-shape in cross section for the purpose of rigidity. The lower end of the pin is tapered to facilitate driving it into the ground and also to facilitate its entry into guideway 11. The upper part of the pin 5 is bent at substantially right angles thereto to provide an arm or stop 12 which is movable into engagement with the bar 1 for securing it to the seat 9 when the pin is driven into the ground. The pins used for clamping the outer rows of reinforcing bars are slightly different in construction than those used for clamping the inner rows of bars, as shown in Fig. 1. In the construction shown in Fig. 1, the upper part of the pin projects laterally considerably beyond the chair to form a spacer arm 13 adapted to abut against the side mold 3 for spacing the

outer rows of bars a uniform distance from the edges of the road.

In the modified construction shown in Figs. 5, 6 and 7, the chair comprises a back 14 which is bent to conform to the shape of the pin, and a pair of side flanges 15 which are bent inwardly adjacent the back 14 to provide shoulders 16 for slidably engaging the lateral edges of the pin. The shoulders 16 and back 14 form a guideway for slidably supporting the pin. The side flanges 15 are inclined outwardly so as to give the chair greater stability. Supporting flanges 17 are formed at the lower ends of the chair, and recesses 18 at the upper ends of the flanges 15 provide the seat for the reinforcing bar.

In operation, the chairs are set up on the ground in rows in approximately the desired locations. The reinforcing bars are then placed on the chairs and the latter are then properly alined and shifted to the desired positions. The pins 5 may then be driven into the ground to secure the chairs in their upright positions and to bring the arms 12 and 13 into position for locking the bars to the chairs.

Although but certain specific embodiments of this invention have been herein shown and described, it is to be understood that numerous details of the construction shown may be altered or omitted without departing from the spirit of this invention as defined by the following claims.

I claim:

1. A device of the class described comprising a chair having a seat for supporting a bar at one end thereof, a substantially flat unobstructed bearing surface on the other end thereof disposed in a plane at substantially right angles to the axis of the body of the chair and adapted to slide on a supporting surface the end of said chair having said bearing surface being devoid of projections which would interfere with such sliding movement, means on said chair for securing a bar to said seat, and other means slidably engaging said chair so as to be adapted to be driven into the supporting surface for securing said chair thereon.

2. A device of the class described comprising a chair adapted to be supported on end on the ground, a substantially flat unobstructed bearing surface arranged at one end thereof in a plane at substantially right angles to the axis of the body of the chair so as to be slidable on the ground upon which said chair rests, the end of said chair having said bearing surface being devoid of projections which would interfere with such sliding movement, the other end of said chair having a seat for supporting a bar, and means for securing a bar to said seat, said means slidably engaging said chair so as to be adapted to be driven into the ground for securing said chair thereon.

3. A device of the class described comprising a channel-shaped chair adapted to be supported on end on the ground, the flanges of said channel-shaped chair being recessed in the upper ends thereof to provide a seat for a bar, parts struck out from the web of said chair between the flanges to form a guideway, and a vertically shiftable pin mounted in said guideway so as to be adapted to be driven into the ground for securing the chair in an upright position, the upper end of said pin being bent at substantially right angles thereto to form an arm movable into engagement with the bar for securing it to said seat, the lower ends of the web and flanges being bent outwardly to provide supporting flanges adapted to rest on the ground.

Signed at Chicago this 19th day of August, 1925.

GEORGE F. HAUF.