CLIP FOR JOINING CROSSBARS

Filed June 10, 1922
TO all whom it may concern:

Be it known that we, JOHN ERB and ADOLPH MONTAN, citizens of the United States, and residents of Newark, county of Essex, and State of New Jersey, and West Orange, county of Essex, and State of New Jersey, respectively, have invented certain new and useful Improvements in Clips for Joining Crossbars, of which the following is a specification.

This invention relates to a clip for connecting and binding cross bars, and while it is adapted for many different purposes, it is particularly designed to hold bars that are arranged in the form of a grid and after being so assembled are used as reinforcing members in concrete walks, floors and the like, the clip being adapted to be quickly attached so as to save time and the cost of labor, and requiring no manipulation beyond its attachment, having no ends to be twisted together.

The invention is illustrated in the accompanying drawings, in which Figure 1 is a perspective view of part of a grid, showing several of the clips in position. Figure 2 is an enlarged top view of a part of two cross bars showing a clip in position. Figure 3 is a section on line 3—3 in Figure 2. Figure 4 is a perspective view of the clip shown in Figures 1, 2 and 3. Figure 5 is a view similar to Figure 2, but of a modified form of clip, and Figure 6 is a perspective view of the clip shown in Figure 5.

10 and 11 indicate the cross bars, which can be of any desired length and are spaced apart the desired distance, and a clip is placed where these bars cross one above the other, the clip being formed of wire to provide an open loop 12 which merges at the two sides into open loops 13 and 14, these loops being extended transversely and being inclined so as to engage the under side of the bar 11 with a helical contact so as to tightly bind for a considerable distance along the bars 11 on either side of the bar 10, and are placed under a tension when the clip is in place, because one of the open loops is extended to form an arm 15 which is of material length so that a good leverage can be provided at the end, which end is turned transversely and extends slightly downwardly, as at 16, so as to engage the upper side of the same element, that is, the bar 10, that is engaged by the open loop 12.

In affixing the clip the open loop is placed over the bar 10 and then slid along so that the loops 13 and 14 are underneath the bar 11, and then the end 16 is caught over the top of the bar 10 and the clip is in place. The single strand 15 projecting from the looped end of the article forms a handle by means of which the device is handled in installation and removal and a curved swing of the hand after the loop 12 is in place is all that is necessary to place the clip in position. Furthermore, the straight transverse end 16 need only be seated on the top of the bar 10 and its cam-like action will draw in the end of the strand 15 to the position shown in Figure 1. The device is one that saves material and that is easily and cheaply manufactured.

It will be understood that in case of readjustment the clip can be as easily removed as it can be installed.

In Figures 5 and 6 we show a modified form in which the open loop 12 is formed at its ends into the open loops 17 and 18 which are arranged substantially at right angles to the loop 12, thereby providing a narrower clip, the arm 15 and the end 16 being substantially the same as in the first described clip.

We claim:

A clip comprising a wire bent to form an arched part with its ends bent to form open loops disposed at right angles to and facing in the opposite direction to the arched part, the wire being extended a material distance beyond the open loop on one side, the end of said extension being bent to lie substantially opposite the arched part and inclined downwardly relative thereto.

In testimony that we claim the foregoing, we have hereto set our hands this 9th day of June, 1922.

JOHN ERB.
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