

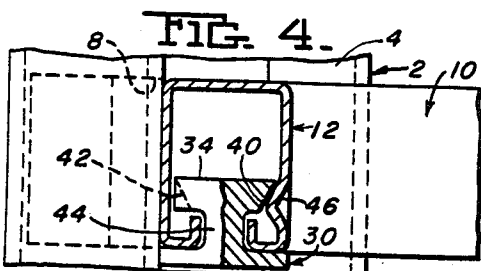
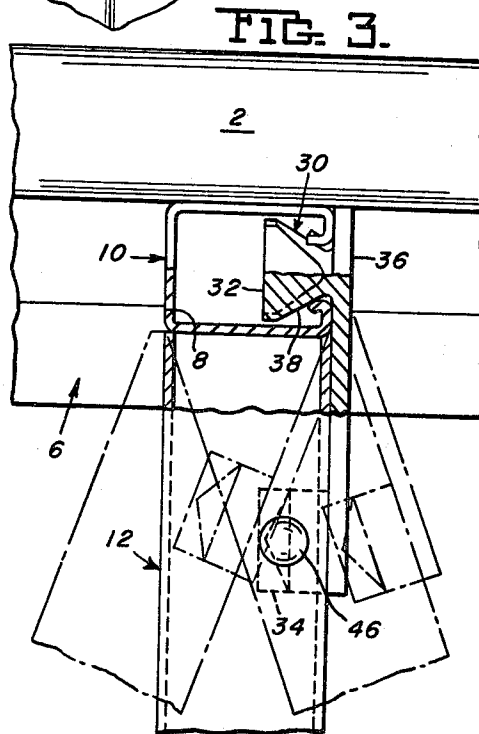
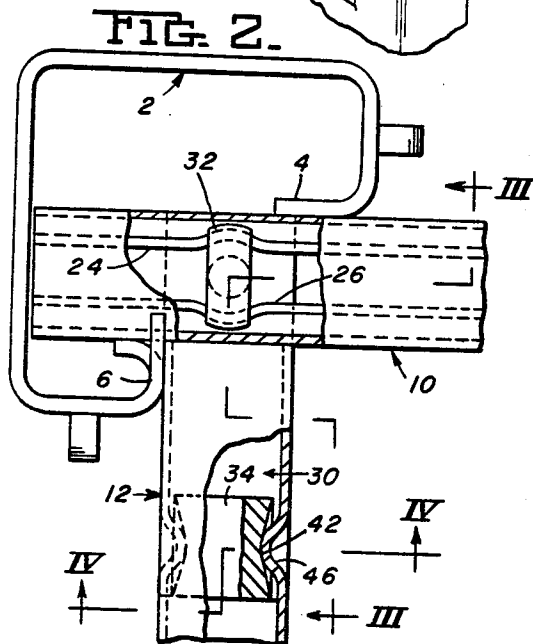
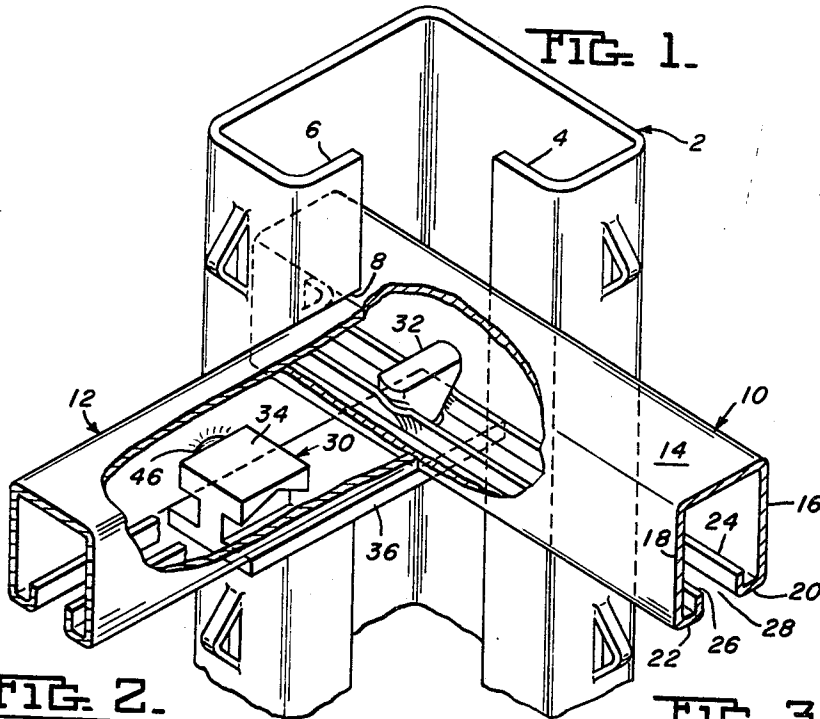
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J. E. ASHWORTH ET AL

3,389,930

RAIL CORNER MOUNTING

Filed July 29, 1966



INVENTORS.
JAMES E. ASHWORTH and
AUGUST L. BARTZ
By *Donald H. Dalton*
Attorney

1

3,389,930

RAIL CORNER MOUNTING

James E. Ashworth, Moraga, and August L. Bartz, Alamo, Calif., assignors to United States Steel Corporation, a corporation of Delaware

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3 Claims. (Cl. 287—189.36)

ABSTRACT OF THE DISCLOSURE

A rail corner mounting including a pair of open rails arranged at an angle to one another, each rail having a longitudinal slot and an inwardly extending flange on each side of the slot, and a one piece connector extending between the rails. The connector has a wedge shaped head at one end which is inserted into the slot of one rail and rotated 90° to deform the flanges. The other end of the connector has a T-shaped head which is received in the slot of the second rail, the T-shaped head having a cavity in one side for receiving a section of the wall of the second rail.

This invention relates to a rail corner mounting and more particularly to such a mounting for use in fencing having open rails and open corner posts. Those rail corner mountings of which we have knowledge require bands, end cups, bolts, washers and nuts of various types and sizes. A special end cup must be provided for right and left hand fittings. In addition to requiring the stocking of a great number of parts the completed assembly does not present a pleasing appearance nor is it structurally efficient.

According to our invention a wedge shaped head on one end of a connector is twisted 90° in the slot of an open rail to lock the rail and connector together by deforming the inner flanges. The other end of the connector has a T-shaped head with cavities on each side so that the connector and the other rail are locked together when the T-shaped head is inserted into the rail and dimples are pressed in the sides of the rail into the cavities.

It is therefore an object of our invention to provide a rail corner mounting for open rails which is simple in construction, pleasing in appearance and which requires only one fitting regardless of whether the construction is right or left hand.

This and other objects will be more apparent after referring to the following specification and attached drawings, in which:

FIGURE 1 is a perspective view of our corner mounting with parts broken away;

FIGURE 2 is a top plan view of the corner mounting with parts broken away;

FIGURE 3 is a view taken on the line III—III of FIGURE 2; and

FIGURE 4 is a view taken on the line IV—IV of FIGURE 2.

Referring more particularly to the drawings, reference numeral 2 indicates an open corner post having inwardly extending flanges 4 and 6 with at least flange 6 having a vertical receptacle 8 formed therein. The post is preferably of the type disclosed in our co-pending application, Ser. No. 568,953, filed July 29, 1966 and entitled "Fence System." An open rail 10 has its end supported in receptacle 8 of the post 2 and a similar rail 12 has its end abutting the side of rail 10. Each rail is made of sheet steel bent to provide a top side 14, two vertical sides 16 and 18 with short horizontal sides 20 and 22 connected to the bottom thereof, and upwardly extending flanges 24 and 26 connected to sides 20 and 22, respectively, so as to provide a longitudinal slot 28. The rails 10 and 12 are held together by means of a connector 30

2

which includes heads 32 and 34 connected by a flat plate like portion 36. The head 32 has upwardly diverging sides 38 with the top of the head being longer than the width of slot 28, but with the width and bottom of the head being narrower than the slot 28. The head 34 is T-shaped with the sides of horizontal leg 40 sloping downwardly toward each other and inwardly toward the center of the head so as to provide V-shaped cavities 42. The vertical leg 44 of the head 34 is of less width than the slot 28.

In assembly, the head 32 is inserted longitudinally into the end of rail 10 with the head 34 outside of the rail and the center of head 32 positioned from the end of rail 10 the same distance as the center of rail 12 when it is in final position. The connector 30 is then turned radially approximately 90° so that the long dimension of the head 32 is arranged transversely of the rail 10. In so doing, the sides 38 of the head 32 will cause a portion of the flanges 24 and 26 to be forced apart and deformed as shown in FIGURE 1 with the plate portion 36 extending across the slot 28 and bearing against the bottom of the rail 10 so that the rail 10 and fitting 30 are locked in position. The end of rail 12 is fitted over head 34 and moved forward until its end abuts side 18 of rail 10. External ball type pressure is then simultaneously applied to the outside vertical sides of rail 12 so as to form dimples 46 which are received in cavities 42 so as to connect fitting 30 to rail 12.

In those cases where the rail 12 is not horizontal, but slopes downwardly due to the contour of the ground the plate portion 36 is also bent downwardly as shown by dash-dot lines in FIGURE 3. In like manner when the rail 12 extends upwardly at an angle due to the contour of the ground the plate portion 36 is bent upwardly adjacent the head 32 as shown by dash-dot lines in FIGURE 3. End of rail 12 is cut on a bias to accommodate either of the above conditions.

While one embodiment of our invention has been shown and described, it will be apparent that other adaptations and modifications may be made without departing from the scope of the following claims.

We claim:

1. A rail corner mounting comprising a pair of open rails arranged at an angle to one another, each rail having a longitudinal slot therein and an inwardly extending flange on each side of said slot, and a one piece connector extending between said open rails; said connector including a first end, a second end, and a generally flat portion connecting said first and second ends, said first end having a portion extending across the slot of the first of said rails and bearing against the outside of said first rail and a head normal to said connecting portion extending through said last named slot and bearing against the flanges of said first rail to deform the same, said head being undercut with the transverse dimension at the free end thereof being greater than the width of said last named slot and with the transverse dimension at the other end of said head being no greater than said width, said second end having a portion extending across the slot of the second of said rails and bearing against the outside of said second rail and a head normal to said connecting portion extending through said last named slot into the interior of said second rail, said last named head being generally T-shaped with the vertical leg thereof being of less width than that of said last named slot and with the horizontal leg being of greater width than said last named slot, said last named head having a cavity in at least one side receiving a section of the wall of said second rail.

2. A rail corner connection according to claim 1 in which each open rail has a top side, two vertical sides connected to the top side, and a horizontal side extending

inwardly from the bottom of each vertical side, said inwardly extending flanges being connected to said bottom horizontal sides.

3. A rail corner connection according to claim 2 in which said first head has upwardly diverging sides forcing a portion of the flanges of said first rail toward said vertical sides to form a connection between the flanges of said first rail and said first head, and said second head has a portion of the sides of the horizontal leg thereof sloping downwardly toward each other to form recesses, the vertical sides of said second rail being deformed inwardly into said recesses to form a connection between said second head and the vertical sides of said second rail.

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EDWARD C. ALLEN, *Primary Examiner.*

10 CARL W. TOMLIN, *Examiner.*

R. S. BRITTS, *Assistant Examiner.*