

April 26, 1932.

W. L. HYDE

1,855,550

T-IRON JOINT

Filed Jan. 14, 1931

FIG. 1.

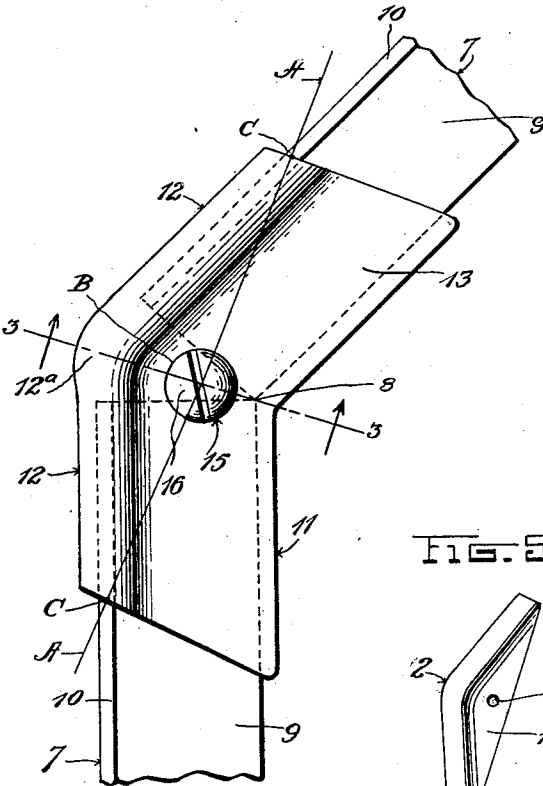


FIG. 2.

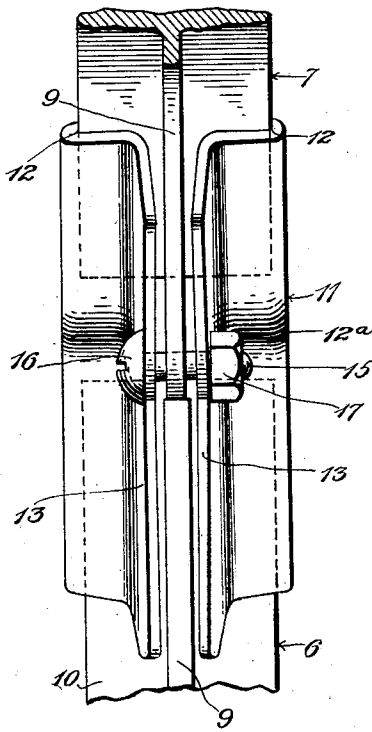


FIG. 5.

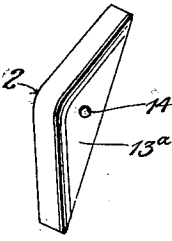


FIG. 3.

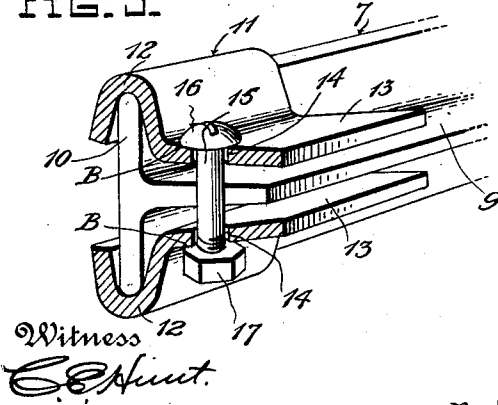
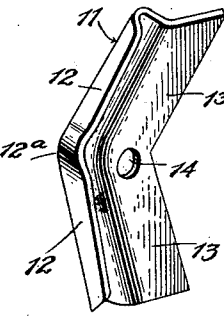


FIG. 4.



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T-IRON JOINT

Application filed January 14, 1931. Serial No. 508,785.

The invention aims to provide an exceptionally simple and inexpensive joint for rigidly connecting angularly related T-irons, the construction being such that the joint-forming device may be advantageously manufactured from two metal stampings and a connecting bolt. The joint is intended primarily for use in connecting inclined extensions with the upper ends of fence posts, but is not restricted to this particular field of use.

Fig. 1 of the accompanying drawings discloses a side elevation of the joint.

Fig. 2 is an edge view.

Fig. 3 is a sectional perspective view substantially on line 3—3 of Fig. 1.

Fig. 4 is a perspective view of one of the side members.

Fig. 5 is an elevation of a side member showing a slightly different construction.

In the drawings above briefly described, the numerals 6 and 7 denote two T-irons disposed at an angle to each other and having the corners 8 of their webs 9 disposed in contact, while the heads 10 of said T-irons are separated, due to the angular relation of said irons. A novel joint-making device is provided for rigidly connecting the adjacent ends of the T-irons 6 and 7.

The device 11 embodies two elongated longitudinally angular metal channels 12 of substantially V-shape in transverse section and adapted for engagement at opposite sides of their vertices 12^a, with opposite edges of the heads 10 of the T-irons 6 and 7. Integral with the inner sides of the channels 12, are two longitudinal flanges which may be of the shape shown at 13 in most of the figures, or of other desired form, for instance that illustrated at 13^a in Fig. 5. The flanges 13 or 13^a are positioned at opposite sides of the webs 9, and said flanges are formed with aligned openings 14 preferably disposed about centrally between their ends. A clamping bolt 15 passes through the openings 14 and extends between the ends of the T-irons 6 and 7, the numbers 16 and 17 being applied to the head and nut of said bolt, for reference hereinafter.

In the preferred construction, the proportion of parts is such that when the channels

12 engage the edges of the heads 10, the flanges 13 or 13^a will be laterally spaced from the webs 9. With T-iron stock, while the width measured across the head of the T, is substantially uniform for stock of any size, there is often variance in the thickness of the webs 9, as indicated in Fig. 2. Hence, if these webs were clamped, the clamping would not be uniform throughout the length of the joint, but by providing a structure in which the channels 12 engage only the opposite edges of the head 10, more effective and uniform clamping is produced. When the openings 14 are positioned to locate the bolt 15 substantially as herein shown, tightening of this bolt will hold the two sections of the clamp tightly engaged with the edges of the heads 10. Attention is invited to the fact that the center of the bolt 15 is substantially in a plane A which intersects the centers of the channels 12, at the extremities of the latter. Hence, it is insured that the bolt head 16 and the nut 17 shall contract with the flanges 13 at points B, between the plane A and the vertices 12^a of the angular channels 12. Hence, tightening of the bolt has a tendency to rock the two clamping members about the points C, in a direction tending to move the vertices 12^a of the channels toward each other. Hence, these channels are held tightly against the edges of the heads 10, throughout their lengths.

The flanges 13 or 13^a may either be perpendicular to the bolt 15 or slightly oblique thereto, the latter construction being shown. If the flanges be at right angles to the bolt, the bolt head 16 and nut 17 will contact with said flanges at points in addition to points B, but as long as contact is maintained at said points B, the two clamping members will not rock about the points C in directions moving the vertices 12^a away from each other.

The joint is exceptionally simple and inexpensive, will tightly grip the two T-irons, regardless of the thickness of the webs 9, and will securely hold said T-irons in desired angular relation with each other. The bolt 15 abuts the ends of the T-irons 6 and 7 as seen in dotted lines in Fig. 1. Hence, when

one of the T-irons stands vertically with the joint device 11 at its upper end, it is insured that said device shall not slide downwardly out of position, even though it should become
5 somewhat loosened. This is also of advantage when initially slipping the device 11 upon the upper end of the T-iron 6, for it limits the downward movement of said device so that no difficulty will be encountered
10 in properly relating the other T-iron 7 with said iron 6 and device 11.

Preferably both sections of the clamp are stamped from suitable gauge metal and they may be exact duplicates, so that one set of
15 dies may be employed and neither the manufacturer nor the user will have to contend with rights and lefts.

Obviously, any suitable metal may be used for the two clamping members. Furthermore, even though I have referred to the
20 members 6 and 7 as T-irons, it is to be understood that this language should not be construed as covering T-bars formed only from iron, for obviously steel or other metal could
25 be used.

On account of the existing advantages for the details disclosed, they are preferably followed. However, within the scope of the invention as claimed, minor variations may
30 be made.

I claim:—

An assemblage of the class described comprising a vertical T-iron, an inclined T-iron having its lower end disposed at the upper
35 end of said vertical T-iron, the webs of said T-irons being disposed in a common plane, two metal channels having vertical halves receiving the head of the vertical T-iron and inclined halves receiving the head of the inclined
40 T-iron, vertical flanges integral with the inner sides of said channels and lying at opposite sides of said webs, and a clamping bolt passing through said flanges, said bolt extending between the adjacent ends of said
45 T-irons, whereby said bolt may abut the upper extremity of the vertical T-iron and prevent downward sliding of the channels upon said vertical T-iron.

In testimony whereof I affix my signature.
50 WALTER L. HYDE.

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