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H. C. BUJACK

1,767,575

SLEEPER TIE

Filed March 21, 1928

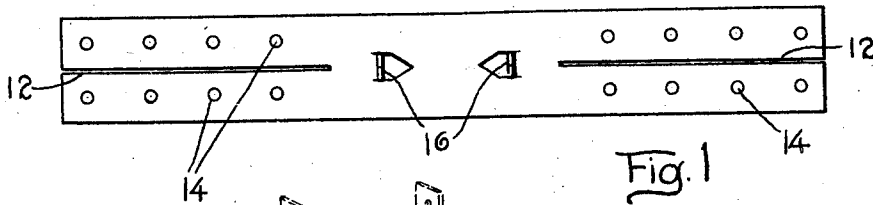


Fig. 1

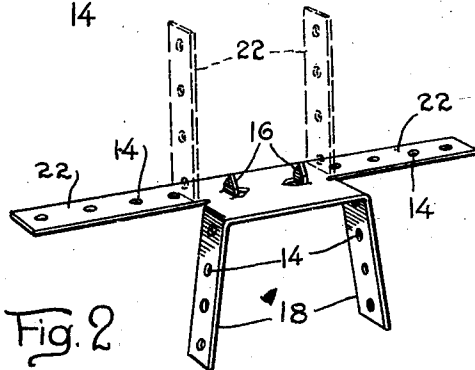


Fig. 2

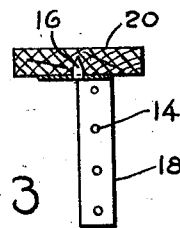


Fig: 3

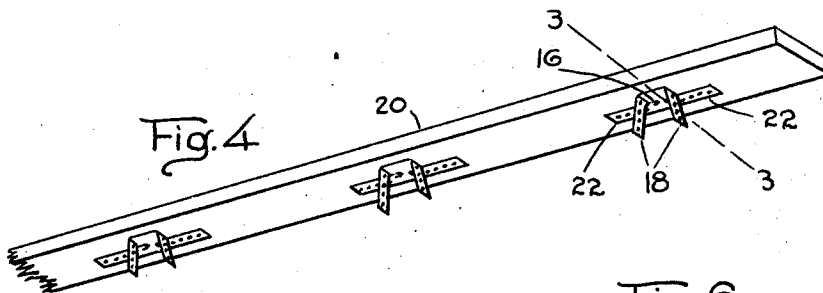


Fig. 4

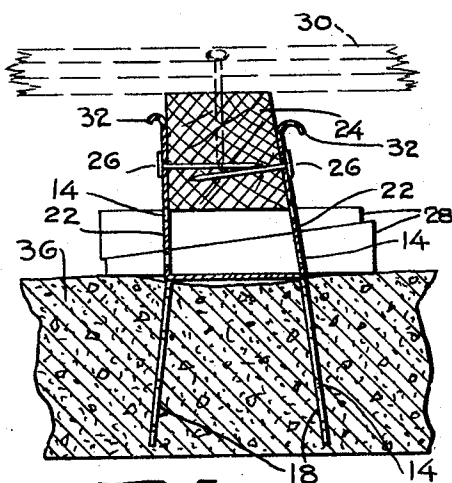


Fig. 5

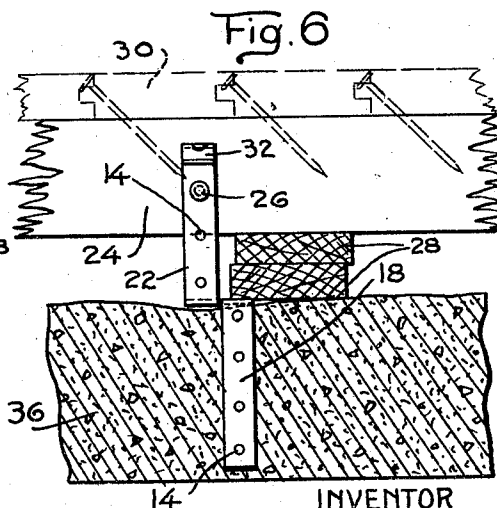


Fig. 6

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SLEEPER TIE

Application filed March 21, 1928. Serial No. 263,360.

My invention relates to an improved sleeper tie to be employed in securing a sleeper to a concrete base or floor bed.

An object is to provide a simple inexpensive sleeper tie which is capable of being readily secured in place in the concrete bed and quickly secured to the sleeper to be held thereon.

Another object is to provide a sleeper tie of the character described which is of a unitary construction being formed of a single strip of metal and which is so built that a large number of such ties may be stored in a relatively small space and shaped when used to be inserted into the concrete and to be secured to the sleeper.

A meritorious feature lies in the provision of a tie of this character comprising a pair of generally U-shaped portions arranged in opposed relationship with their backs disposed in substantially the same plane and preferably formed integrally. The structure is of such a character that the portion which is inserted into the concrete is firmly embedded therein, parts of the concrete extending therethrough, and the portion which is secured to the sleeper is readily deformable to embrace the sleeper and is perforated to receive fastening means.

In conjunction with my improved type of sleeper tie I have developed an improved method of securing these ties into the concrete base, which method is particularly adaptable for use in connection with a tie of the character described and whereby a plurality of such ties may be readily disposed within the concrete base at one operation in the proper spaced relationship therein.

Other objects, advantages and meritorious features of my invention will more fully appear from the following description, appended claims and accompanying drawings, wherein—

Fig. 1 is a plan view of my improvement.

Fig. 2 is a perspective of my improved sleeper tie shaped to be inserted into a concrete base.

Fig. 3 is a cross-sectional view taken on line 3—3 of Fig. 4.

Fig. 4 is a perspective showing a carrier

strip supporting a plurality of my improved sleeper ties.

Fig. 5 is a fragmentary sectional view through a concrete bed carrying a sleeper showing my improved tie in use.

Fig. 6 is a cross-sectional view through the same bed showing the same tie and being at right angles to the view of Fig. 5.

My improved sleeper tie is preferably formed of a single piece of sheet metal of the shape shown generally in Fig. 1, wherein the opposite ends of the strip are cut providing opposed incisions 12 extending inwardly from each end toward the middle but terminating short thereof. Perforations 14 are preferably made through the end portions on opposite sides of the incisions 12 and sharpened lugs 16 are struck out of the middle portion of the strip.

When the strips are used the opposed end portions on one side of the strip are bent to provide spaced apart prongs 18 which form with the connecting intermediate portion a structure of a general U-shape. The remaining portion of the strip is adapted to be bent as shown in dotted outline in Fig. 2 to form a second U-shaped portion, offset laterally from the first portion, and arranged oppositely with respect thereto so that the two U-shaped portions are arranged generally back to back with their backs lying in substantially the same plane and forming an integral structure.

When the tie is used, a suitable method of embedding the same in the concrete is to fasten at intervals along a suitable carrier strip 20, which may be formed of wood, a plurality of these ties by pushing the sharpened lugs 16 into the wood strip so that it will support the ties.

The carrier strip with the ties attached is then pressed down upon the surface of a concrete bed such as 36 while the same is moist, forcing the prongs 18 into the concrete. The concrete is then allowed to harden and the carrier strip is withdrawn from the lug. The ties when in this shape are formed as shown in solid line in Fig. 2, and the prongs 22 lie on the surface of the concrete. These prongs are bent upwardly as shown in dotted

line in Fig. 2 so that the upwardly extending U portion will straddle a sleeper 24 as shown in Figs. 5 and 6 and may be secured thereto by nails 26 extending through the apertures 14. The concrete itself extends through the apertures 14 in the U prongs which are embedded therein.

In Figs. 5 and 6 I have shown wedge blocks 28 which are commonly used to adjust the level and height of the sleepers and a floor structure 30 as resting upon the sleepers, and I have also shown the upper ends 32 of the ties as bent outwardly which is necessary only where such ties are too long due to the employment of a sleeper of a depth less than that for which the tie is adapted.

This particular sleeper tie is made of deformable metal so that it readily adapts itself to sleepers of different size but yet possesses sufficient strength for the purpose in question.

What I claim is:

1. A sleeper tie formed of a single strip of sheet material incised along its longitudinal center from each end towards the middle but terminating short thereof to form divided arms and provide a central rectangular saddle portion, spaced apart pointed tangs struck upwardly from said saddle portion on a line with said incision, linearly spaced perforations in each of the said arms, one pair of opposed arms being bent downwardly toward each other to form with the said saddle portion a substantially U-shaped structure.

2. A sleeper tie as set forth in claim 1, wherein the other pair of opposed arms are bent toward each other in the opposite direction to form, with said central saddle portion, a second substantially U-shaped structure laterally offset from the first and inverted with respect thereto.

In testimony whereof, I, HERMAN C. BUJACK, sign this specification.

HERMAN C. BUJACK.