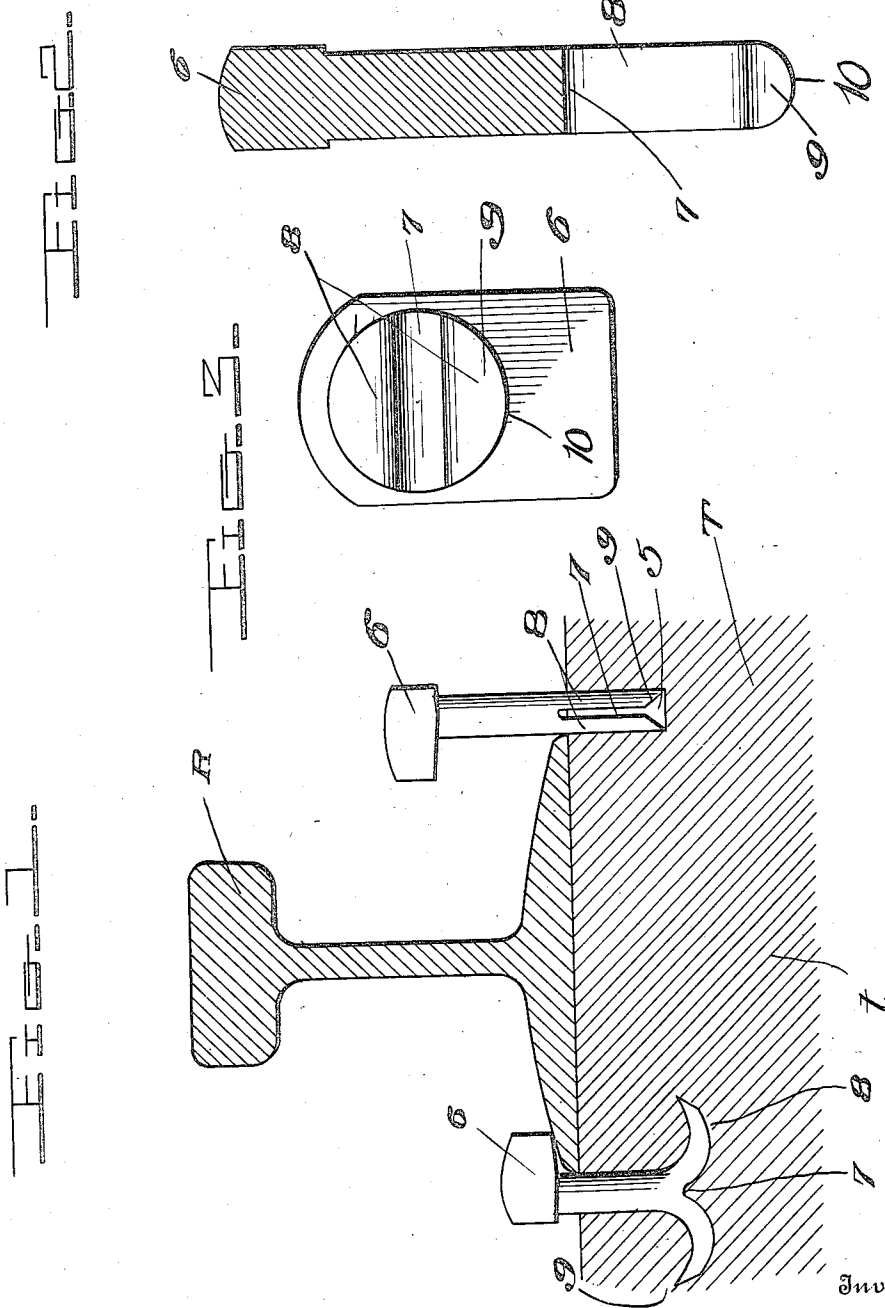


O. E. McCREA.
FASTENING DEVICE.
APPLICATION FILED JAN. 13, 1912.

Patented Feb. 11, 1913.

1,052,682.



Inventor

O. E. McCreA,

Witnesses

Chas. L. Griestauer.

By

Watson E. Coleman

Attorney

A. B. Norton.

UNITED STATES PATENT OFFICE.

OLIVER ELMER McCREA, OF FRESNO, CALIFORNIA.

FASTENING DEVICE.

1,052,682.

Specification of Letters Patent.

Patented Feb. 11, 1913.

Application filed January 13, 1912. Serial No. 670,994.

To all whom it may concern:

Be it known that I, OLIVER ELMER McCREA, a citizen of the United States, residing at Fresno, in the county of Fresno and State of California, have invented certain new and useful Improvements in Fastening Devices, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in bolts, spikes, rivets and similar fastening devices and has for its principal object to produce a device of this character whereby the shank of the bolt is automatically spread to form retaining means which will effectually prevent the withdrawal of the same.

A further and more specific object of the invention is to provide a bolt or spike having a split shank, the ends of the split portions of the shank having their opposed faces sharply beveled or inclined to direct said split portions in opposite directions when the bolt is driven home, whereby all liability of the bolt working loose or being extracted is overcome.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section through a rail showing the same arranged upon a supporting tie and secured thereon by means of spikes or bolts embodying my improvements; Fig. 2 is a longitudinal section of the device; and Fig. 3 is an end view thereof.

For the purpose of illustrating the use of the invention, I have shown in the accompanying drawing a rail R arranged upon a supporting tie T. It will, however, be understood, that the embodiment of the present invention in a rail securing spike is only one of the many useful purposes to which the invention may be put, and the device may also be manufactured in the form of bolts, rivets and similar fasteners.

In the use of the illustrated embodiment of the invention, openings or holes are first drilled into the tie upon opposite sides of the rail base. These openings are of less depth than the length of the spikes and when the spike is arranged in the opening as shown at the right hand side of Fig. 1, the upper headed portion thereof 6 is disposed some distance above the top surface

of the tie. The lower end of the bolt is longitudinally split as indicated at 7 to provide the spaced portions 8 which are comparatively weak and will readily bend when the spike is driven home. The ends of these spaced portions 8 of the spike have their inner faces sharply beveled or inclined as indicated at 9, such inclined faces extending at an angle of substantially 45°. The provision of these inclined faces also forms the sharp edges 10 upon the ends of the split portions 8 of the shank of the spike so that when the head of the spike is struck with a sledge, the split end thereof will be driven into the body of the tie at the base of the opening therein. Owing to the inclined faces 9 on the ends of the split portions 8 of the spike, said split portions are bent in opposite directions as shown at the left hand side of Fig. 1 and are extended through the tie laterally, the extremities of said split portions being disposed upwardly. The head of the bolt of course rests upon the edge of the base flange of the rail to hold said rail in position upon the tie and effectually prevent its movement. As the beveled faces 9 are driven into the wood, the wood of the tie forms a wedge indicated at *t* which enters between the opposed faces of the split portions of the spike shank, and gradually forces the same apart.

From an inspection of Fig. 1 of the drawings, it will be readily seen that when the spike has thus been driven to its effective position, the separated split portions thereof will effectually hold the same in the tie and prevent the spike being withdrawn from the opening therein. Thus liability of lateral movement of the rail upon the supporting tie caused by the loosening of the spikes, is absolutely prevented. A bolt or spike constructed in the manner above described is extremely simple, may be manufactured at very small cost and is strong durable and effective in practical use.

Having thus described the invention what is claimed is:—

The herein described fastening device comprising a cylindrical shank having a head on one end, the other end of said shank being longitudinally split for less than one-half of its length to provide spaced portions, the opposed faces of said spaced portions of the shank being disposed in parallel relation and having their ends oppositely beveled at an angle of substantially 45° with

relation to the longitudinal axis of the shank, semicircular sharpened edges upon the separated portions of said shank, said sharpened edges cutting into the material into which
5 the shank is driven and the beveled faces thereof causing the separated portions of said shank to spread apart and project the extreme ends of said separated portions up-

wardly substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

OLIVER ELMER McCREA.

Witnesses:

E. B. HEFFERNAN,
ASA A. GOURLEY.