

T. WARREN.
 COMBINED TIE LIFTER AND HOLDER.
 APPLICATION FILED AUG. 2, 1909.

938,528.

Patented Nov. 2, 1909.

FIG. 1

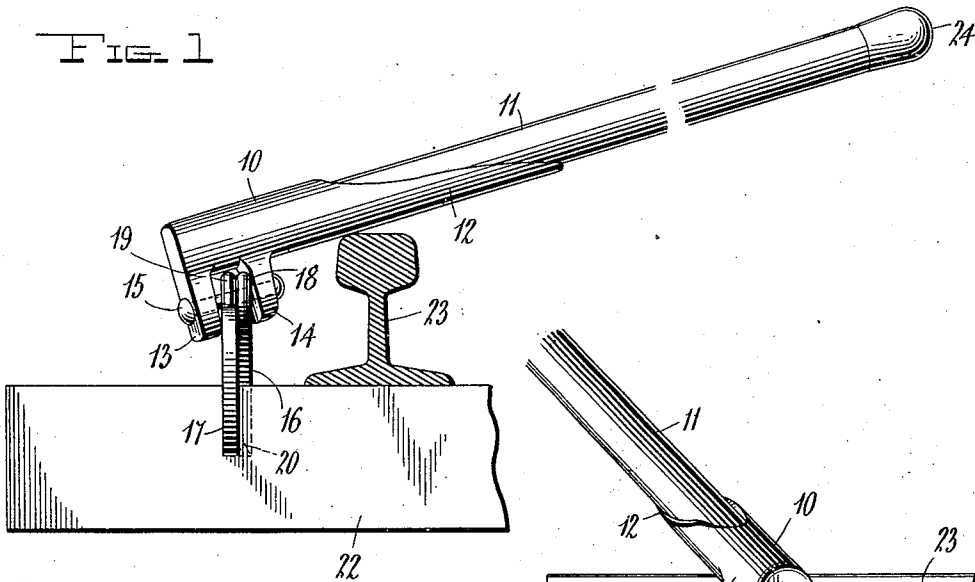


FIG. 2

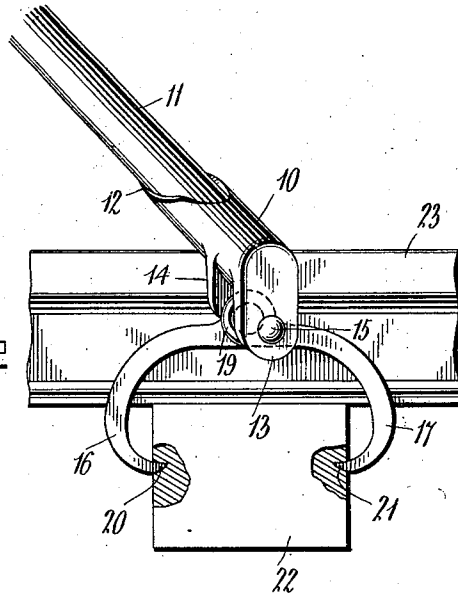
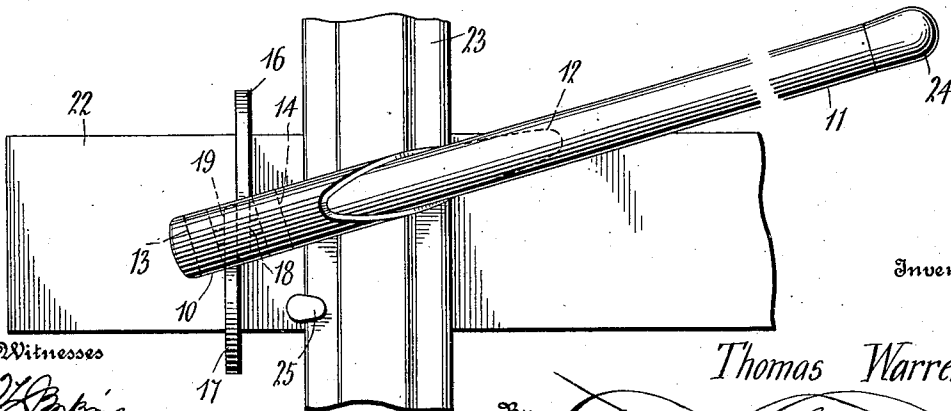


FIG. 3



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THOMAS WARREN, OF BALBOA, PANAMA.

COMBINED TIE LIFTER AND HOLDER.

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To all whom it may concern:

Be it known that I, THOMAS WARREN, a citizen of the Republic of Panama, residing at Balboa, Republic of Panama, have invented certain new and useful Improvements in Combined Tie Lifters and Holders; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to devices employed in railway construction and repairing for supporting ties against the rails while the spikes are being inserted, and commonly known as tie lifters or tie holders, and has for one of its objects to simplify and improve the construction and increase the efficiency and utility of devices of this character.

With this and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described and then specifically pointed out in the claims, and in the drawings illustrative of the preferred embodiment of the invention, Figure 1 is a side elevation of the improved implement applied to a rail and a tie, the rail being in transverse section. Fig. 2 is an end elevation of the improved device together with a side view of a portion of a rail and an end view of a tie. Fig. 3 is a plan view of the improved device as shown in Fig. 1.

The improved device comprises a socket 10, preferably of malleable iron or the like, and arranged to receive a handle or stock 11, preferably of wood and closely engaging in the socket. The socket is provided with a projecting shield or guard 12 extending longitudinally of the handle 11 for a considerable distance, as shown. Depending from the socket 10 near its outer end are spaced ears 13—14 through which a pin 15 passes.

Mounted to swing upon the pin 15 between the ears 13—14 are two hook members 16—17 having eyes 18—19 at one end through which the pin 15 passes, and curving inwardly at their free ends and terminating in points or grips 20—21. The hooks 16—17 are preferably precisely alike, and suspended in opposite relations from the pin 15, and are adapted to engage a tie repre-

sented at 22 from opposite sides. In operating the device the handle or stock 11 is placed over the head of the rail, represented at 23, and the points 20—21 engaged in opposite sides of the tie 22, the free end 24 of the stock 11 being elevated to bring the points 20—21 at a relatively low point upon the tie, and then by depressing the free ends 24 of the stock 11 the members 16—17 are caused to closely grip the tie and cause the latter to be drawn upwardly, in close contact with the bottom of the tie flange of the rail and holding the tie thus engaged until the spike is driven. By locating the socket 10 to bear upon the rail 23 relatively close to the ears 13—14, a strong leverage is obtained, to enable the tie 22 to be closely engaged beneath the tie flange of the rail, and held thereby until the spike is driven.

Preferably the device will be arranged obliquely to the rail as shown in Figs. 2 and 3, so that the application of the device does not interfere with the driving of the spike indicated at 25. After the outside spike is driven, the implement is reversed in position and applied to the tie upon the opposite side of the rail, or swung around reversely to the position shown in Fig. 3, so as to uncover the portion of the tie into which the inside spike is to be driven, as will be understood.

The projecting shield or guard 12 serves the two-fold purpose of a wear plate to prevent abrasion of the stock 11 where it would otherwise come in contact with the rail, and also as a support for the stock to increase its strength and rigidity. The improved device may be located at any point upon the rail to increase or decrease the leverage, as will be obvious.

The improved device is simple in construction, can be inexpensively manufactured, and enables one man to do the work that heretofore has required two men to perform.

What is claimed is:—

1. In an implement of the class described a socket having a guard portion extending from one end and with ears depending from the other end, the ears being perforated to receive a transverse pin, a stock secured in said socket and engaging in said guard portion, and reversely curved hooks swinging from said pin and having terminal points, said socket being adapted to bear over a railway

rail and said hooks being adapted to engage a railway tie.

2. An implement of the class described comprising a socket having depending spaced
5 ears transversely of the socket, a stock supported in said socket, a pin extending through said spaced ears, and reversely arranged hooks having terminal points and

mounted to swing upon said pin and operating transversely of the socket and the stock. 10

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

THOMAS WARREN.

Witnesses:

BURT WHITEHEAD,
E. J. NICHOLS.