

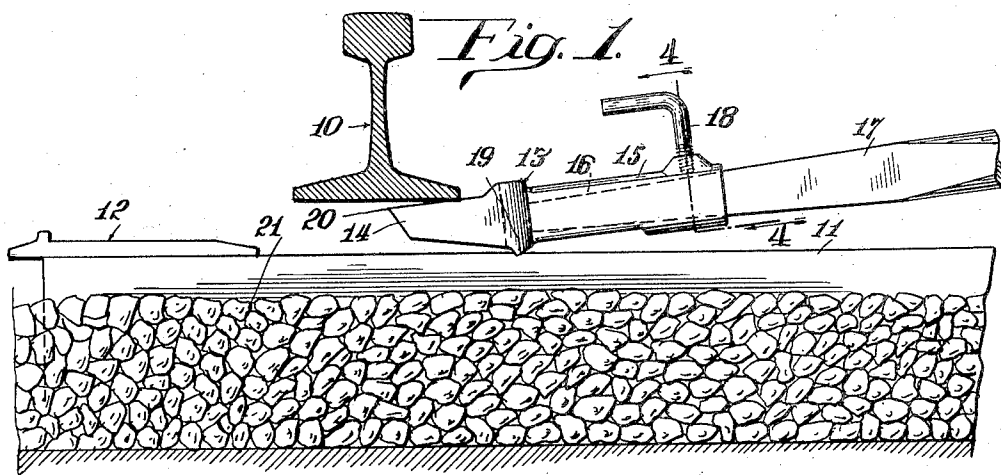
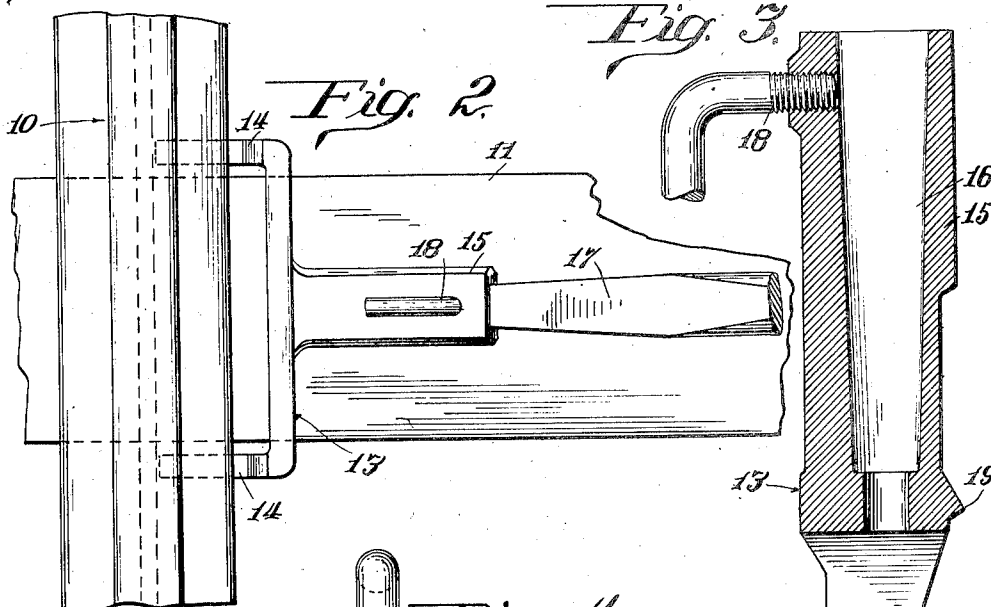
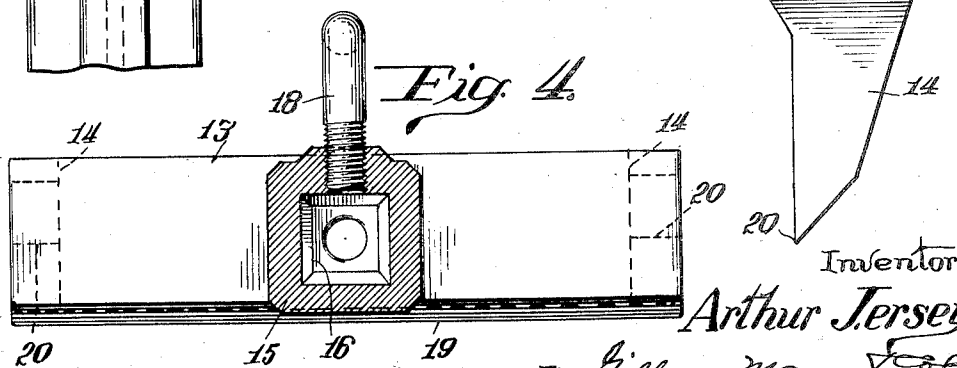
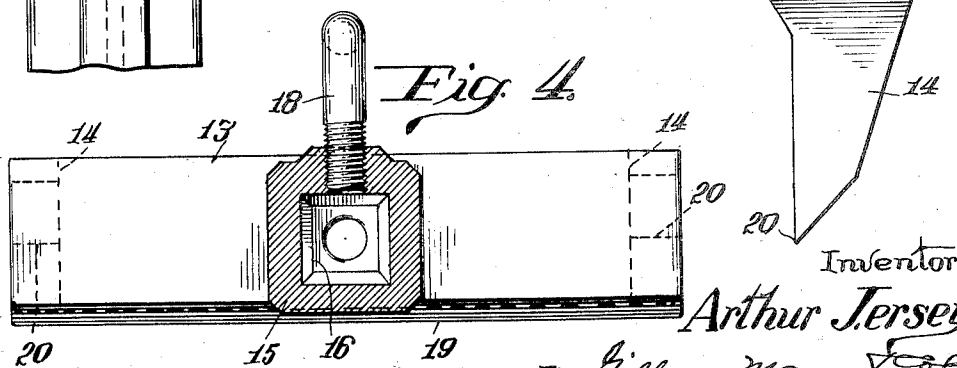
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RAIL LIFTER

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RAIL LIFTER

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2 Claims. (Cl. 254—121)

The invention relates to devices for raising a railroad rail from a tie upon which it is resting.

In railroad practice, as is well known, the rails rest upon and are spiked to a series of cross-ties which are embedded in the roadbed, a tie plate being interposed between the rail and each tie. In maintaining the track in proper condition it is necessary at times to replace the tie plate, and this work should be done without interrupting traffic. It is accomplished by removing the spikes from the tie at which the replacement is necessary, and then raising the rail from the tie sufficiently to permit the removal of the old plate and the insertion of a new one.

The elevating of the rail requires considerable force, as it remains attached to the adjacent ties and they must be raised slightly with it. Heretofore it has been the practice to use a jack for thus raising the rails. This implement is heavy and cumbersome, and slow in its action, and is frequently attended by considerable danger of injury to the workman.

The object of the present invention is to provide improved means for accomplishing this work in that the implement is comparatively light, and hence easy to carry about and apply; enables the workman to use ample force to separate the rail from the tie; is very quick in its action; and its use is not attended with any danger of injury.

A preferred embodiment of the invention is hereinafter described, and is illustrated in the accompanying drawing, in which

Fig. 1 is a detail cross-section of a railroad track with the improved track raiser in use;

Fig. 2 is a detail plan view of the same;

Fig. 3 is a longitudinal central section of the implement; and

Fig. 4 is a sectional view on the line 4—4 of Fig. 1.

The rail being lifted is represented at 10, and the tie from which it is being separated is shown at 11. A tie plate 12 is shown as resting upon the tie and in position to be thrust under the raised rail.

The lifting tool is in the form of a fork or U-shaped head, and comprises a cross-member 13 and a pair of forwardly projecting arms 14, one at each end of the member 13. A shank 15 projects backwardly from the cross-member 13, and is longitudinally socketed, as shown at 16, to receive a lining bar 17 as a handle. A set-screw 18 enters the socket 16 laterally for the purpose of binding the bar to the shank. The lower face of the cross-member 13 is provided with a rib 19, which is brought roughly to a knife edge in

order that it may bite into the tie 11. The arms 14 are brought to a point, as indicated at 20, in order that they may be thrust into the ballast 21 if, as is often the case, its upper surface is even with the top of the tie.

The lining bar 16 is a tool in common use in the laying and repairing of tracks, its forward end being square in section, tapering approximately to a point to enable it to be thrust into the ballast in employing it for the uses for which it is immediately intended. This bar is of ample length to provide the necessary leverage for the lifting tool to enable a workman to lift the rail 10 from the tie.

In applying the lifter its arms or prongs are thrust into the ballast under the rail, or between the ballast and the rail, its cross-bar resting upon the tie 11. Downward pressure upon the lining bar, now acting as the power end of a lever, raises the rail from the tie a sufficient distance to permit a proper placement of the tie plate 12. The rail being now lowered, the necessary spikes for securing the rail to the tie may be driven into the latter.

I claim as my invention—

1. A rail lifter comprising a head having a transverse member and a pair of arms extending from one side thereof spaced to straddle an ordinary railway tie, and a shank extending from the opposite side of the member having a socket for receiving a handle in substantially the plane of the arms, each of the arms being pointed to adapt the head to be thrust into the track ballast beneath the tie.

2. A rail lifter comprising a head having a transverse member and a pair of arms extending from one side thereof spaced to straddle an ordinary railway tie, a longitudinal fulcrum rib formed on the transverse member and provided with a knife edge configuration adapted to bite into the tie, and a shank extending from the side of the transverse member opposite the arms having a socket for receiving a handle in substantially the plane of the arms, each of the arms being pointed to adapt the head to be thrust into the track ballast beneath the tie, and each of the arms having its upper or rail-engaging surface substantially parallel to the axis of the socket.

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