Dec. 8, 1942. N. E. KIRKLAND 2,304,752

RAILWAY TIE TOOL

Filed Aug. 4, 1941

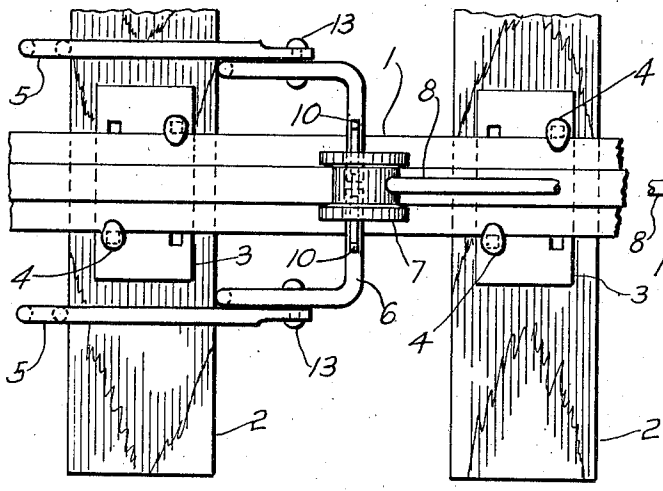


Fig. 1.

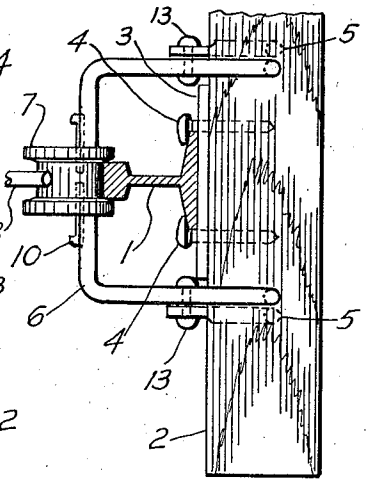


Fig. 2.

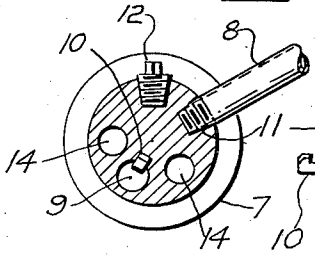


Fig. 4.

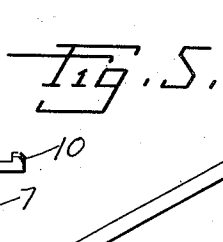


Fig. 5.

Fig. 3.

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RAILWAY TIE TOOL

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Application August 4, 1941, Serial No. 405,309

2 Claims. (Cl. 254—121)

This invention relates to improvement in railway tie tools and has for its main object to provide a tool whereby a cross tie may be firmly supported in position tightly against the base of a rail while the rail is being spiked to the tie.

In a tool of this kind it is necessary that it must be so made as to be easily and quickly removable from the track on approach of a train. Also it should afford plenty of room for the spike driver to hit the head of the spike without any part of the tool being an obstruction. The present invention possesses such qualities as well as being simple in construction and highly efficient for the purpose intended. Other advantages will appear in the description.

By referring to the drawing, part of this application, it will be observed that Fig. 1 is a plan view showing tool on rail and holding tie in place for spiking; Fig. 2 is an end view of Fig. 1; Fig. 3 is a side elevational view of the tool on the rail with the tie in place for spiking; Fig. 4 is an enlarged end view of the fulcrum roller of the tool; Fig. 5 is an enlarged view of the fulcrum roller showing its flanges.

Similar reference numerals refer to similar parts throughout the several views.

Again referring to the drawing it will be seen that the tool assembly has a flanged roller 7 as a fulcrum in which is inserted a lever handle 8 by screw means 11. The roller is provided with two or more screw holes if desired so that the lever handle 8 may be screwed into either. The handle is shown in one hole while the other has a plug 12 screwed into it to preserve the threads in good order. Into each end of the roller 7 is inserted an L shaped arm 6 in a hole 9 in the roller 7. This arm has a pointed curved end. The arm 6 is keyed by a key 10 in hole 9 so that the point of arm 6 will be disposed to clamp and become inserted in the tie 2 side when the handle 8 is pushed downward toward the rail 1 on which the roller 7 is resting and held in place by the flanges of the roller. Attached to L arm 6 is another hook arm 5 that clamps the opposite side of the tie 2. The arms are connected by a bearing pin 13 to form a joint. In use the lever 8 is pushed downward to cause leverage so as to lift the tie 2 by means of arms 5 and 6 clamping and holding the tie tightly adjacent the base of the rail 1 so that spikes 4 may be placed in holes in rail plate 3 so as to guide the spikes 4. The spikes are driven into the tie in the usual way with a spike hammer not shown. The lever 8 may be held in place for use of the tool by a chain indicated by 16 and 17, one end of the chain being attached to the lever 8 and the other end attached to a clamp 15 that catches under the edges of the top of the rail 1. In order to lighten the roller 7 it is provided with holes 14 through it. When downward pressure on the lever 8 is released and the lever is lifted at its free end it rolls the roller and thereby causes the hook arms to release their grip on the tie so as to be able to remove the tool assembly quickly from the track in case of emergency, or regularly if there is no emergency.

While I have shown the preferred embodiment of my invention I do not wish to limit myself to the precise and exact details of structure but reserve the right to make any and all modifications and changes so long as I remain within the spirit and scope of the following claims.

Having described my invention I claim:

1. A railway tie tool of the class described comprising, a lever handle screwed into a double flange roller, said roller disposed to fit on top of a railway rail, an L shaped arm extending out of a hole in each end of said roller and keyed to same, each arm having a hook pointed end, another arm with a hook end attached to each of said first arms by pin means, the said roller provided with two threaded holes to accommodate said lever handle, said roller having additional holes to reduce its weight, a chain and clamp thereon disposed to hold said lever in downward position when in use.

2. A railway tie attaching tool of the class described comprising, a roller with a flange on each end, said roller disposed to fit on top of a railway rail, a lever handle screwed into said roller between the flanges thereof, an L shaped and hook-pointed arm extending from each end of roller, said arms being rigidly held in said roller by hole and key means, a second pair of hook-pointed arms attached to said L shaped arms by pin joint means, said four arms forming double tong-like clamps disposed to grip the two sides of said tie when said lever is pushed downward and hold said tie adjacent the base of said rail, chain and clamp thereon leading from the free end of said lever to the top of said rail and said clamp disposed to fit under the top edges of the said rail.

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