

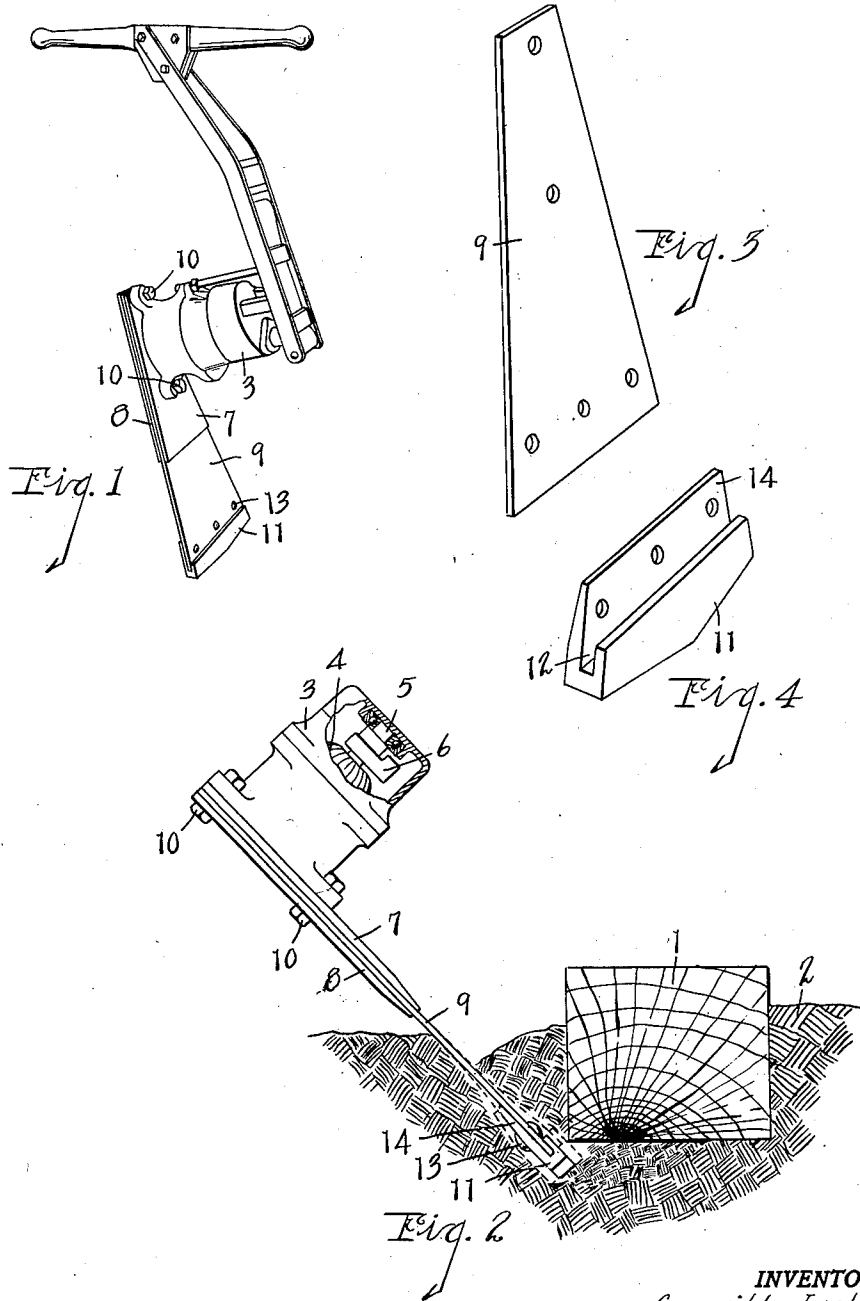
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C. JACKSON

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TAMPER

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UNITED STATES PATENT OFFICE

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TAMPER

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The main objects of this invention are:

First, to provide a tamper which is well adapted for the tamping of gravel, cinders and other materials commonly designated in railway parlance as light ballast.

Second, to provide a tamper adapted for such materials which is of very large capacity and highly efficient in the tamping of ballast on the underside of the ties.

Third, to provide a tamper having these advantages which is of very large capacity.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawing, forming a part of this application, in which:

Fig. 1 is a perspective view of my improved tamper.

Fig. 2 is a fragmentary view illustrating the manipulation thereof in tamping a railway tie.

Fig. 3 is a perspective view of the tamper blade or blade-like tool of my improved tamper.

Fig. 4 is a perspective view of the tool nose piece or tip.

In the accompanying drawing, 1 represents a railway tie and 2 the ballasting material.

My improved tamper comprises a vibrating unit which in the embodiment illustrated consists of a motor casing 3 in which the rotor of an electric motor is indicated at 4. The shaft 5 of this rotor is provided with an unbalancing weight 6 so that as the shaft is rotated high speed vibrations are set up in the casing.

The tool holder in the embodiment illustrated consists of a pair of flat plates 7 and 8 between which the flat blade-like tool 9 is clamped by means of bolts 10 arranged through the tool holder plates 7 and 8 and the blade. This blade is of resilient material; that is, it is formed of steel of such gauge that under the action of the vibrating unit, the blade is vibrated, a series of impacts being imparted thereto as well as lateral vibrations being set up in the blade as is indicated

in Fig. 2; that is, the blade being resilient vibrates to a substantial extent as well as being subject to the impact movement resulting from the use of the vibrating unit.

The blade is of substantial width and I also preferably provide it with a tip or nose piece 11 of considerable thickness, that is, relative to the blade, this nose piece being a casting and designed to receive wear and also present a wider impacting surface.

The nose piece is provided with a groove or channel 12 adapted to receive the end of the blade, being secured thereto by rivets 13 arranged through holes in the bottom arm 14 of the nose piece and the blade.

The handle 15 is secured to the casing 3 through a resilient connection designated generally by the numeral 16, this handle having a bar-like hand piece 17. As the details of this resilient connection form no part of the present invention they are not illustrated herein.

My improved tamper is especially desirable, as stated, for use in tamping light ballast such as gravel, cinders and the like as distinguished from crushed rock. The wide blade serves as a guide for material to be tamped so that it will flow down the upper side of the blade and is guided thereby under a tie. By making the blade relatively thin, it vibrates transversely, as stated, facilitating this movement of the material to a position down the blade and also working it under a tie or other object being ballasted.

I have illustrated and described my improvements in an embodiment which I have found highly satisfactory.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a tamper, the combination of a motor casing, a motor housed within said casing and provided with a shaft having an unbalancing weight, a handle having a flexible connection to one end of said casing, a tool holder rigidly mounted on the other end of said casing, an upwardly tapered resilient blade of substantial width mounted in said tool holder, and a detachable blade tip of substantially greater thickness than the blade

and having its forward edge inclined in both directions from a central point.

2. In a tamper, the combination of a motor casing, a motor housed within said casing and provided with a shaft having an unbalancing weight, a handle having a flexible connection to one end of said casing, a tool holder rigidly mounted on the other end of said casing, a relatively wide thin resilient blade mounted in said tool holder, and a blade tip of substantially greater thickness than the blade.

3. In a tamper, the combination of a motor casing, a motor housed within said casing and provided with a shaft having an unbalancing weight, a handle having a flexible connection to one end of said casing, a tool holder rigidly mounted on the other end of said casing, and a relatively wide thin resilient tool mounted in said tool holder.

4. In a tamper, the combination of a motor casing, a motor housed within said casing and provided with a shaft having an unbalancing weight, a handle having a flexible connection to said casing, and a relatively wide thin resilient tool mounted on said casing so that it receives the impact of the vibrations of the casing, said blade being provided with a tip of substantially greater thickness than the blade.

5. In a tamper, the combination of a motor casing, a motor housed within said casing and provided with a shaft having an unbalancing weight, a handle having a flexible connection to said casing, and a relatively wide and thin tool mounted on said casing so that it receives the impact of the vibrations of the casing.

6. In a tamper, the combination with a vibrating unit including a casing, of a handle having a flexible connection to said casing, a resilient blade-like tool connected to said casing, and a blade tip of substantially greater thickness than said blade having its forward edge inclined in both directions from a central point.

7. In a tamper, the combination with a vibrating unit including a casing, of a handle having a flexible connection to said casing, a relatively wide and thin blade connected to said casing, and a blade tip of substantially greater thickness than said blade.

8. In a tamper, the combination with a vibrating unit including a casing, of a handle having a resilient connection to said casing, and a relatively wide and thin tool connected to said casing.

9. In a tamper, the combination with a vibrating unit provided with a handle, a resilient blade-like tool rigidly connected to said vibrating unit, and a detachable blade tip of substantially greater thickness than said blade.

10. In a tamper, the combination with a vibrating unit provided with a handle, and a

relatively wide and thin tool rigidly connected to said vibrating unit.

11. In a tamper, the combination of a vibrating unit including a casing therefor, a handle having a resilient connection to said casing, a relatively wide thin blade of resilient material mounted on said casing, and a blade tip of substantially greater thickness than the blade having its forward edge inclined in both directions from a central point.

In witness whereof I have hereunto set my hand.

CORWILL JACKSON.

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