March 26, 1929. C. JACKSON 1,706,575

TAMPER OR LIKE IMPACT TOOL

Filed Dec. 10, 1927 2 Sheets-Sheet 1

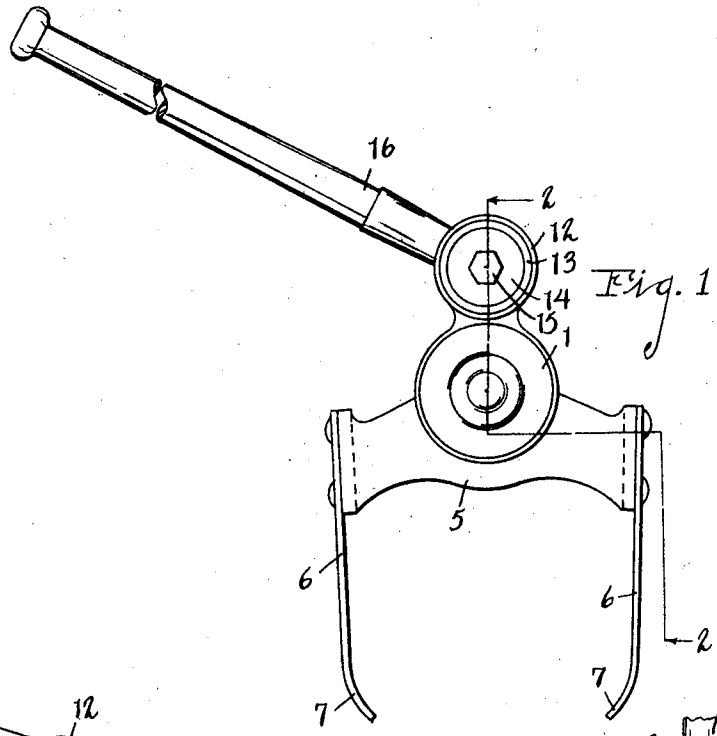


Fig. 1

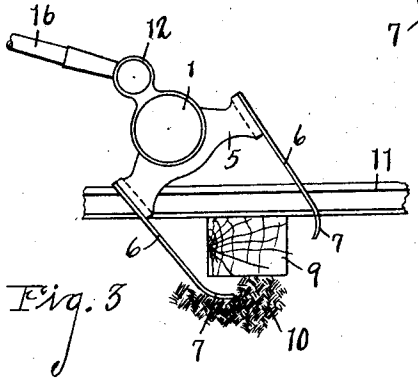


Fig. 3

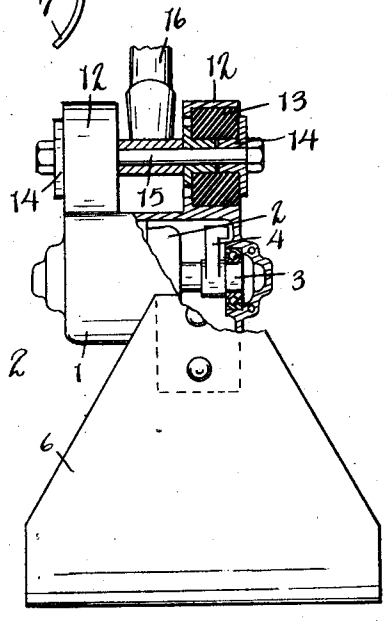


Fig. 2

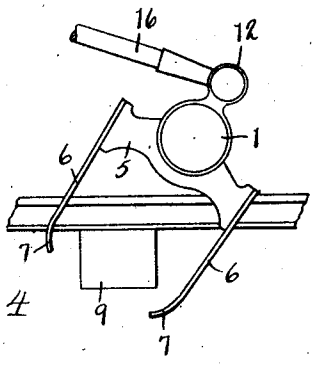


Fig. 4

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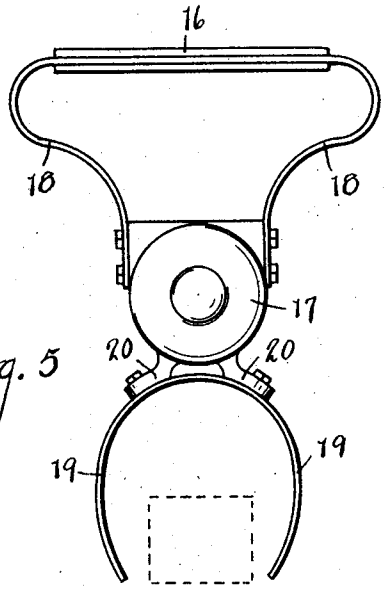


Fig. 5

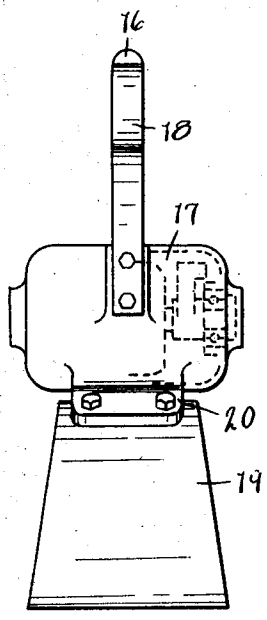


Fig. 6

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Patented Mar. 26, 1929. 1,706,575

UNITED STATES PATENT OFFICE.

CORWILL JACKSON, OF CHICAGO, ILLINOIS.

TAMPER OR LIKE IMPACT TOOL.

Application filed December 10, 1927. Serial No. 239,199.

The present invention embodies the vibrating principle of the structure of Letters Patent No. 1,329,049 issued to me under date of January 27, 1920.

The main object of this invention is to provide an improved tool for tamping the ballast of railway ties and the like which is very efficient, of large capacity and easy to manipulate.

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

A structure embodying the features of my invention is illustrated in the accompanying drawings, in which:

Fig. 1 is an end elevation of a tamper embodying the features of my invention, a portion of the handle being broken away.

Fig. 2 is a detail view partially in vertical section on line 2—2 of Fig. 1.

Fig. 3 is a detail end elevation showing my improved tamper in one operative relation or position relative to a railway tie.

Fig. 4 is a detail end elevation showing my improved tamper in another operative relation to a railway tie.

Fig. 5 is an end elevation of a modified form or embodiment of my invention.

Fig. 6 is a side elevation.

In the accompanying drawings the structure illustrated is operated by an electric motor which is enclosed within a housing 1, the motor being conventionally shown at 2. The motor is provided with a shaft 3 supported in suitable bearings within the housing, this shaft having an unbalancing weight 4 which, when the motor is running, causes the housing and the parts attached thereto to vibrate.

Disposed transversely of the housing is a crosshead 5 to which the tamping blades or tools 6 are secured in opposed spaced relation. These tamping blades, when the structure is designed for tamping ballast about railway ties, have inwardly curved lower ends 7. The crosshead is of such length that the tamping blades may be straddled over a railway tie indicated at 9, the ballast being indicated at 10 and the rail at 11.

The housing is provided with upwardly projecting spaced ears 12 which form holders for the rubber cushions 13. These rubber cushions are provided with flanged sleeves 14 for the pivot 15 so that the pivot is resiliently supported or resiliently connected to the ears. The handle 16 is arranged between the ears to receive the pivot.

With this arrangement the handle may be employed to manipulate the tamping blades as indicated in Figs. 3 and 4, the ballast being tamped first from one side and then from the other side of the tie without the necessity for the operator changing his position from side to side of the tie, or the tamper may be held in an upright position when it is desired to tamp the soil at the sides of the tie.

In the modification shown in Figs. 5 and 6, the handle 16 is secured to the motor housing 17 by means of the resilient arms 18. The tamping blades or tools 19 are formed integrally, the same being a piece of metal formed to a U-shape, the crosshead arms 20 on the motor housing being conformed to receive this inverted U-shaped blade member. The crosshead and the housing constitute a body by which the vibrating means are carried, the tools being mounted on this body member in spaced relation and the handle arranged so that the tamping blades may be manipulated astride a tie or the like, as indicated in the drawings.

My improved tamper is highly efficient for use in tamping material beneath and at the sides of a tie and may be handled with a minimum of effort on the part of the operator. The resilient connection for the handle to the housing member relieves the operator of much of the vibration which would otherwise be transmitted through the handle.

The electric motor within a housing as illustrated is preferred although the shaft 3 might be otherwise driven as through a flexible shaft from a motor stationed at a distance.

I have not illustrated the electric connections to the motor as such connections will be readily understood by those skilled in the art.

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

1. In a structure of the class described, the combination of a motor housing provided with upwardly projecting spaced handle attaching ears, a handle disposed between said ears, resilient cushion members arranged within said ears, a pivot for said handle supported by said cushions, a crosshead carried by said motor housing, a pair of tamper blades having inwardly curved lower ends mounted in opposed relation on the ends of

said crosshead, and a motor arranged within said housing and provided with a shaft having an unbalancing weight.

2. In a structure of the class described, the combination of a motor housing provided with upwardly projecting spaced handle attaching ears, a handle disposed between said ears, resilient cushion members arranged within said ears, a pivot for said handle supported by said cushions, a crosshead carried by said motor housing, a pair of tamper blades mounted on said crosshead, and a motor arranged within said housing and provided with a shaft having an unbalancing weight.

3. In a structure of the class described, the combination of a motor housing, a handle resiliently connected to said housing, a crosshead carried by said motor housing, a pair of tamper blades having inwardly curved lower ends mounted in opposed relation on the ends of said crosshead, and a motor arranged within said housing and provided with a shaft having an unbalancing weight.

4. In a structure of the class described, the combination of a motor housing, a handle resiliently connected to said housing, a crosshead carried by said motor housing, a pair of tamper blades mounted on said crosshead, and a motor arranged within said housing and provided with a shaft having an unbalancing weight.

5. In a structure of the class described, the combination of a motor housing, a handle pivotally connected to the top of said housing, a crosshead carried by said housing, a motor arranged within said housing and provided with a shaft having an unbalancing weight, and tools rigidly mounted on said crosshead.

6. In a structure of the class described, the combination of a motor housing, a handle pivotally connected to the top of said housing, a motor arranged within said housing and provided with a shaft having an unbalancing weight, and a pair of tools rigidly mounted on said housing in opposed relation.

7. In a structure of the class described, the combination of a body member, tamping blades mounted on said body member in opposed spaced relation, a vibrating means for said body member, and a handle resiliently connected to said body member.

8. In a structure of the class described, the combination of a crosshead, tamping blades mounted on said crosshead in opposed spaced relation, a vibrating means for said crosshead, and a handle pivotally connected to said crosshead centrally relative to said blades.

9. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation and having inwardly curved lower ends, a vibrating means mounted on said body member, and a handle pivotally connected to said body member whereby the same may be manipulated to an upright position or oppositely tilted.

10. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation, a vibrating means mounted on said body member, and a handle pivotally connected to said body member whereby the same may be manipulated to an upright position or oppositely tilted.

11. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation and having inwardly curved lower ends, a vibrating means for said body member, and a handle connected to said body member whereby the same may be manipulated to upright or oppositely tilted position, said handle having a resilient connection to said body member.

12. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation, a vibrating means for said body member, and a handle connected to said body member whereby the same may be manipulated to upright or oppositely tilted position, said handle having a resilient connection to said body member.

13. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation and having inwardly curved lower ends, a vibrating means for said body member, and a handle resiliently connected to said body member.

14. In a structure of the class described, the combination of a body member, tools mounted on said body member in opposed spaced relation, a vibrating means for said body member, and a handle connected to said body member.

In witness whereof I have hereunto set my hand.

CORWILL JACKSON.