

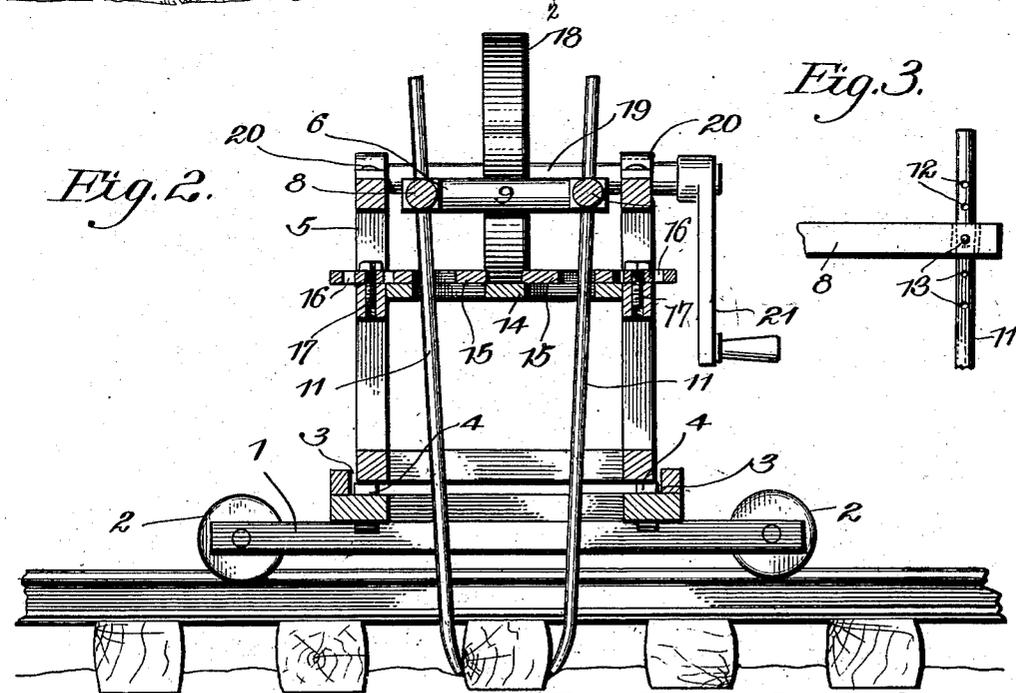
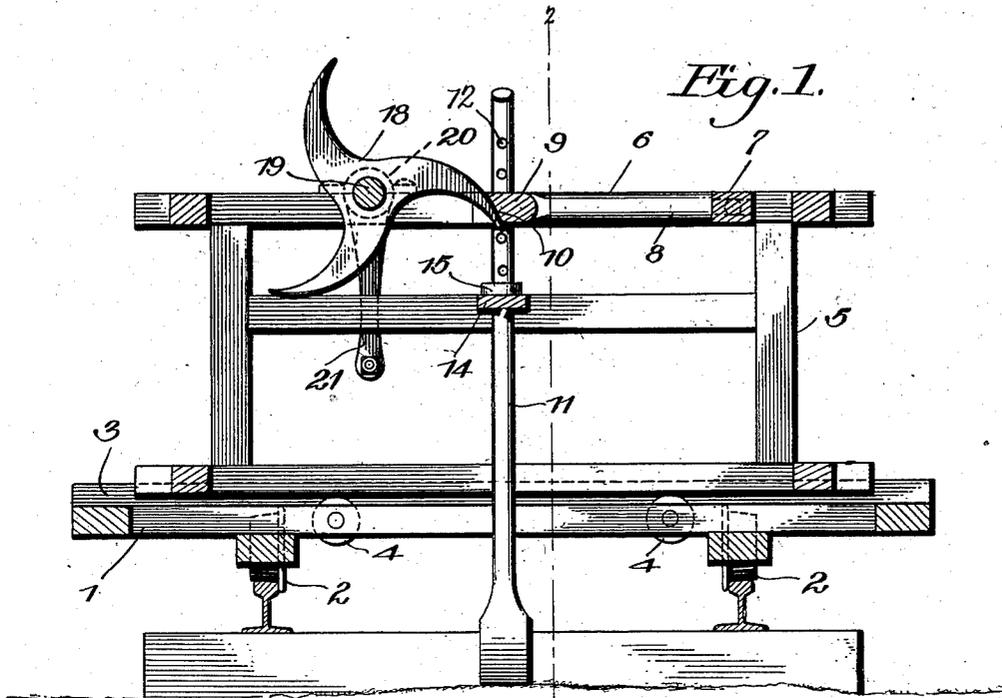
No. 748,089.

PATENTED DEC. 29, 1903.

L. R. MOSELEY.
MACHINE FOR TAMPING RAILWAY BALLAST.

APPLICATION FILED SEPT. 5, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

LEE ROY MOSELEY, OF GOSHEN SPRINGS, MISSISSIPPI, ASSIGNOR OF ONE-HALF TO BENJ. L. ROBERTS AND EMILE LEVY, OF CANTON, MISSISSIPPI.

MACHINE FOR TAMPING RAILWAY-BALLAST.

SPECIFICATION forming part of Letters Patent No. 748,089, dated December 29, 1903.

Application filed September 5, 1903. Serial No. 172,139. (No model.)

To all whom it may concern:

Be it known that I, LEE ROY MOSELEY, a citizen of the United States, residing at Goshen Springs, in the county of Rankin and State of Mississippi, have invented a new and useful Machine for Tamping Railway-Ballast, of which the following is a specification.

This invention relates to machines for tamping railway-ballast.

The object of the invention is to produce a machine of the class specified in which the number of parts is small, the construction simple, and the operation effective.

A further object of the invention is to produce a machine of the class specified which shall be easily operated and which may be readily shifted into position to tamp the ballast about any portion of a railway-tie.

With the objects above stated and others in view, which will appear as the invention is more fully disclosed, the same consists in the novel construction and arrangement of parts of a machine for tamping railway-ballast hereinafter described, illustrated in the accompanying drawings, forming a part of this specification, and having the novel features thereof particularly pointed out in the appended claims.

In the drawings, Figure 1 is a longitudinal section through the machine in a vertical plane. Fig. 2 is a transverse section on line 2 2 of Fig. 1. Fig. 3 is a detail view showing the mode of securing the tampers in the oscillating frame.

Corresponding parts are designated by the same characters of reference in the several views in which they appear.

Referring to the drawings by reference characters, 1 designates the frame of a carriage having wheels 2, provided with flanges for engagement with track rails and ways 3, disposed transversely of the carriage and provided with antifriction-rolls 4.

5 designates a frame mounted for reciprocation upon the rolls 4 in the ways 3 of the carriage-frame. The frame 5 is composed of side members, end members, and upright members suitably connected, as by mortise-and-tenon joints, as shown. The frame 5 is of such width that it rests between the sides of the ways 3 and moves readily back and

forth on the antifriction-rolls 4. The frame 5 has mounted between the upper side members a rock-frame, designated generally as 6, and comprising a member 7, pivotally mounted in the upper side rails of the frame 5, side members 8, attached to said pivotally-mounted member, and a cross-piece 9, connecting the side members 8 adjacent to their free ends and provided on its under side with an inclined cam-surface 10. The side members 8 of the rock-frame are slotted at their free ends, as shown, and in the slots are pivotally mounted tampers 11, each of which is so mounted upon its pivot that it is susceptible of being swung transversely of the frame 5 as well as longitudinally thereof. The tampers 11 are provided with a plurality of holes 12 near the upper ends thereof for engagement with the pivot-pins 13, so that the tampers may be adjusted in the slotted ends of the side members of the rock-frame.

Mounted on the side members of the frame 5 below the members carrying the rock-frame is mounted a slotted cross-piece 14, through the slots in which pass the tampers 11, and adjustably mounted on the upper surface of the cross-piece 14 are two guide-loops 15, by means of which the inclination of the tampers toward each other is determined. The guide-loops 15 are provided with perforations 16 in the stems thereof for the passage of pins 17, which also engage the openings in the cross-piece 14 and form means whereby the guide-loops 15 may be adjusted in position.

Movement is imparted to the rock-frame 6 and the tampers 11 carried thereby from a cam-wheel 18, rigidly secured to the shaft 19, journaled in bearings 20 on the upper side members of the frame 5 and provided at one end with a crank 21 for imparting rotation thereto. The cam-wheel 18 comprises a hub and a plurality of curved arms—in this instance three—each of which is of the same curvature and is adapted to engage when the cam-wheel is rotated with the incline 10, provided on the under side of cross-piece 9 between the free ends of the members 8.

In use the tampers are adjusted so that they have a suitable inclination and extend to the right distance beneath the rock-frame

by introducing pins 17 into the proper openings 16 and by passing the pivot-pins 13 through the proper openings 12 in the tampers. The parts having been properly adjusted and the machine having been brought into suitable position over a railway-tie, motion is imparted through the crank 21 to the shaft 19 and to the cam-wheel 18. As the cam-wheel 18 revolves the curved arms thereof engage successively with the inclined surfaces formed on the cross-piece 9 and raise the rock-frame to a suitable height upon the contact of each tappet-arm therewith. As soon as one of the curved arms passes out of engagement with the inclined surface 10 the rock-frame and the tampers, which are of heavy material, immediately drop under the influence of gravity and the tampers impinge the ballast on either side of the railway-tie. As often as is necessary the frame 5 will be shifted upon the antifriction-rolls 4 to bring the tampers into position to engage with untamped ballast.

It will be seen that by means of a machine constructed as above described it is easy by shifting the frame on the carriage to bring the tampers into position to engage any part of the ballast adjacent to a railway-tie, so as to tamp it down firmly against the tie and under the same. It will also be noted that the tampers are so held that their inclination to each other and the portion of the length of each tamper beneath the rock-frame may be very readily adjusted by very simple means.

While I have shown, described, and illustrated the preferred form of embodiment of my invention, it is to be understood that changes may be made in the form, proportions, and exact mode of assemblage of the elements therein without departing from the spirit of the invention or sacrificing any of its advantages.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a machine of the class described, of a supporting structure mounted for travel along a railway-track, a rock-frame pivotally mounted in said supporting structure for movement in a plane transverse to the track, tampers pivotally mounted in said frame, means for guiding the movement of said tampers so that their lower ends are drawn together as they descend, and means for rocking said frame.

2. The combination in a machine of the class described, of a supporting structure

mounted for pivotal movement in a plane at right angles to the track, a pair of oppositely-inclined tampers pivotally mounted at the free end of said frame, guides for said tampers, and means for rocking said frame.

3. The combination in a machine of the class described, of a supporting structure mounted for travel along a railway-track, a rock-frame mounted for pivotal movement in a plane at right angles to said track, a pair of oppositely-inclined tampers pivotally mounted at the free end of said frame, adjustable guide-loops through which said tampers pass, and means for rocking said frame.

4. The combination in a machine of the class described, of a supporting structure mounted for travel along a railway-track, a rock-frame mounted for pivotal movement in a plane at right angles to said track, a pair of inclined tampers pivotally mounted at the free end of said rock-frame, guides for said tampers, and a cam-wheel rotatably mounted in said supporting structure and adapted to engage said rock-frame between said tampers.

5. The combination in a machine of the class described, of a supporting structure mounted for travel along a railway-track, a rock-frame mounted for pivotal movement in a plane at right angles to said track and provided at the free end thereof with a transverse member having an inclined cam-surface, a pair of tampers pivotally attached to said frame at the free end thereof, guide-loops through which said tampers pass, and a cam-wheel having a plurality of curved arms which present cam-surfaces adapted to engage the inclined cam-surface on the rock-frame to impart rocking movement thereto.

6. The combination in a machine of the class described, of a carriage mounted for travel along a railway-track, ways provided on said carriage and disposed transversely thereof, a slidable frame mounted for movement in said ways, a rock-frame carried by said slidable frame and mounted for pivotal movement in a plane at right angles to said track, a pair of oppositely-inclined pivoted tampers carried by said rock-frame, adjustable guide-loops through which said tampers pass, and means for imparting movement to said rock-frame.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

LEE ROY MOSELEY.

Witnesses:

O. F. GARRETT,
A. S. BIELER.