

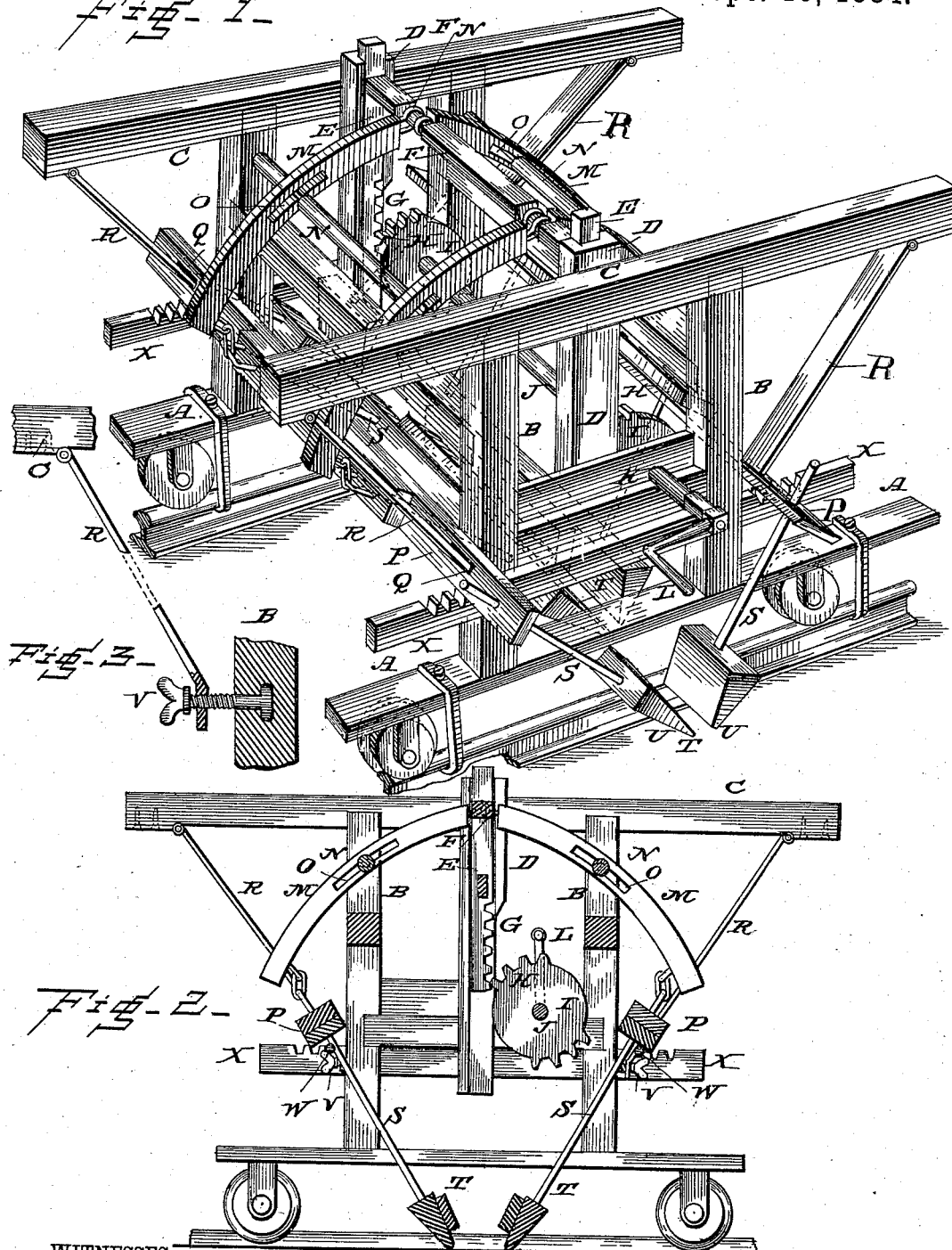
(No Model.)

C. P. GABLE.

MACHINE FOR TAMPING RAILWAY BALLAST.

No. 305,383.

Patented Sept. 16, 1884.



WITNESSES:

Wm. S. Dieterich
John J. Fischer

INVENTOR.

Cary P. Gable
By *Louis Prager & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CARY PHILLIP GABLE, OF PELAHATCHIE, MISSISSIPPI.

MACHINE FOR TAMPING RAILWAY-BALLAST.

SPECIFICATION forming part of Letters Patent No. 305,383, dated September 16, 1884.

Application filed April 16, 1884. (No model.)

To all whom it may concern:

Be it known that I, CARY P. GABLE, a citizen of the United States, and a resident of Pelahatchie, in the county of Rankin and State of Mississippi, have invented certain new and useful Improvements in Machines for Tamping Railway-Ballast; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved machine for tamping railway-ballast. Fig. 2 is a longitudinal vertical section of the same, and Fig. 3 is a detail view of the means for adjusting the guides.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to machines for tamping ballast around the ties in railway-tracks; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letters A A indicate two parallel skids, mounted upon wheels or rollers adapted to run upon the rails, and two pairs of upright posts, B B, project from the skids, forming the sides of the frame of the machine, and are connected at their upper ends by the top bars, C C, the ends of which project beyond the posts. Vertical ways D are secured upon the inner sides of the side frames of the machine, and the side pieces, E, of a vertically-sliding frame, F, slide in these ways and have the lower portions of one of their edges formed into cogged racks G, which racks are engaged by cogged segments H upon two disks, I, secured upon a shaft, J, which is journaled transversely in bearings in cross-pieces K, secured to the upright posts, and provided at its ends with cranks L or similar means for revolving it. The cogged segments upon the periphery of the disks alternate with smooth portions cut away to the depth of the cogs of the segments, and in this manner, when the shaft and disks are revolved, the cogged segments will engage the racks, drawing them and the frame down-

ward, whereupon the smooth places will again allow the racks and frame to be raised, when the following cogged segments may again engage and draw down the racks and frame, and so forth. Curved arms M are hinged at their inner ends to the top piece of the vertically-sliding frame, and have their fulcrum in longitudinal slots O at or near their middles, through which slots transverse bars N, connecting the upper ends of the upright posts of the side frames of the machine, pass, the arms sliding with the said slots upon the bars, and cross-bars P, having slots Q near their ends, are hinged to the outer ends of these arms. The cross-bars P slide with their slots upon inclined guide-bars R, which are hinged or otherwise movably connected at their upper ends to the outer ends of the top bars of the side frames of the machine, and extending to near the lower ends of the upright posts of the same; and bars or rods S are secured at their upper ends in the said sliding cross-bars, and tamping-blocks T, extending between the side frames of the machine and between the rails, are secured to the lower ends of the rods inside the slots in the bars, while smaller tamping-blocks, U, are secured to the rods or bars outside the aforesaid slots. The inclined guide-bars are provided at their lower ends with adjusting-screws V, which pass through perforations in their lower ends and turn in threaded perforations in the upright posts of the side frames of the machine, by means of which adjusting-screws the incline of the guide-bars, and consequently of the tamping-bars and their blocks, may be adjusted, thus enabling the said tamping-bars and blocks to be adjusted to suit different widths of ties, the distance between the blocks increasing or decreasing with the pitch of the incline of the guide-bars.

For the purpose of further supporting and guiding the tamping-bars, transverse rods W are placed one at each end of the machine-frame, with their ends resting in notches in the upper edges of extended horizontal bars X, secured to the sides of the side frames of the machine, upon which transverse rods the tamping-bars rest and slide. It will thus be seen that the machine may be placed with its skids resting and sliding upon the rails of the track, the tamping-blocks fitting upon each

side of the tie, when the cranks may be turned, reciprocating the tamping bars and blocks, which ram the ballast under and around the tie upon both sides of the same at the same time.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a machine for tamping railway-ballast, the combination of two upright side frames adapted to rest with their lower ends upon the rails of the track, and provided with vertical ways upon their innersides, a frame sliding in the said ways, means, substantially as described, for reciprocating the said frame, levers hinged at their inner ends upon the upper end of the sliding frame, and pivoted at or near their middles upon cross-bars connecting the upper edges of the upright side frames near their ends, cross-bars hinged to the outer ends of the levers, and having inwardly and downwardly inclined tamping bars and blocks projecting from them, and inwardly-inclined guide-bars upon which the cross-bars slide, having means for adjusting their lower ends for adjusting the incline or pitch of the tamping-bars, as and for the purpose shown and set forth.

2. In a machine for tamping railway-ballast, the combination of two upright side frames mounted upon skids adapted to rest and travel upon the rails of the track, having the ends of their top bars extended and provided with vertical ways upon their facing sides, a frame

sliding with its side pieces in the said ways, and having the lower portions of the edges of its side pieces formed into cogged racks, a transverse shaft, having means for revolving it, journaled in bearings in the side frames, and provided with disks or wheels having alternating cogged segments and smooth spaces in their peripheries, curved levers hinged with their inner ends to the top pieces of the sliding frame, and pivoted with longitudinal slots at or near their middles upon transverse bars between the side frames, inclined guide-bars movably attached at their upper ends to the extended ends of the top pieces of the frames, and having adjusting-screws at their lower ends for adjusting their pitch, cross-bars sliding with their slotted ends upon the said guide-bars and hinged to the outer ends of the curved levers, tamping-bars having blocks at their lower ends, and projecting downwardly, inclined from the sliding cross-bars, horizontal bars having the upper edges of their ends notched and secured to the sides of the side frames, and transverse rods resting with their ends in the said notches supporting and guiding the tamping-bars, as and for the purpose shown and set forth.

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

CARY PHILLIP GABLE.

Witnesses:

S. R. MARTIN,

JOSH. WILLIAMS.