

(No Model.)

W. E. DAVIES.

TAMPING CAR.

No. 262,746.

Patented Aug. 15, 1882.

Fig. 1.

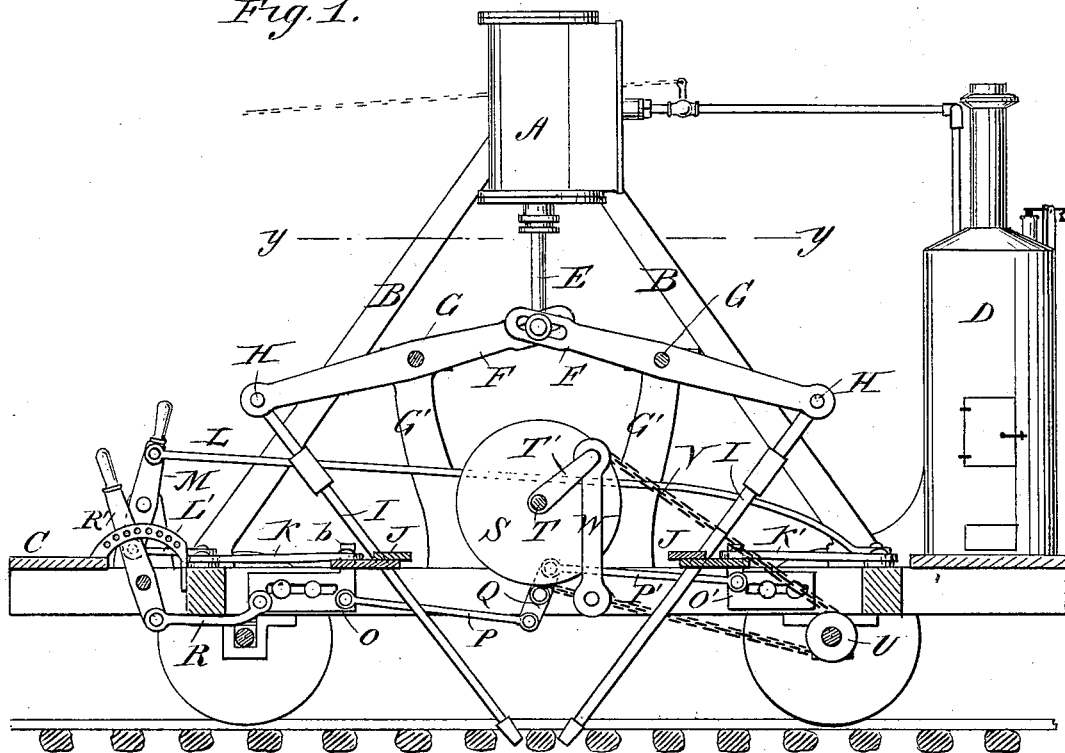
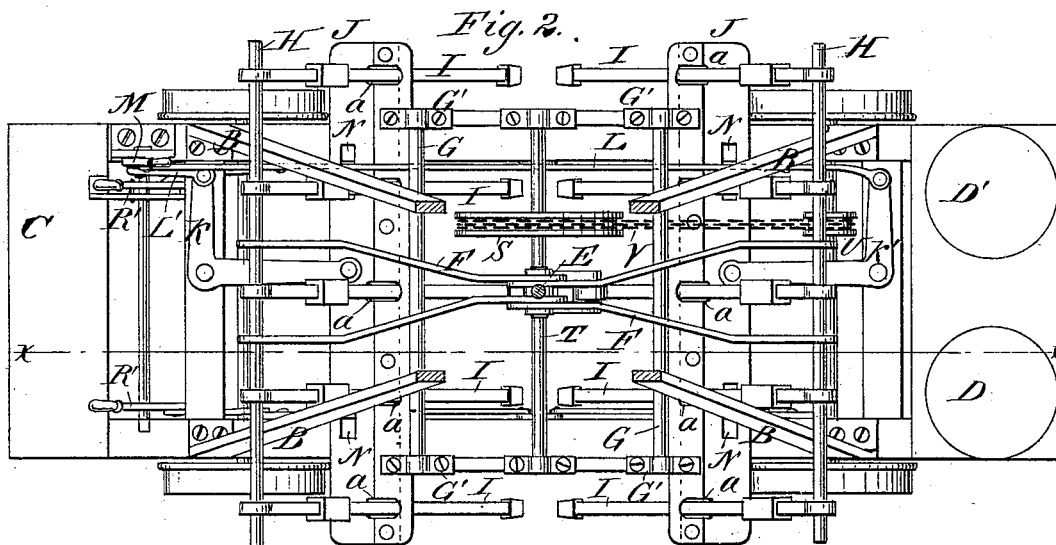


Fig. 2.



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TAMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 262,746, dated August 15, 1882.

Application filed May 15, 1882. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. DAVIES, of Derringer, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Tamping-Car, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved machine for tamping railway-sleepers.

The invention consists in combining with a car and motor tamping-bars and rocking levers whose inner ends are connected to a piston-rod or a motor and their opposite ends to the tamping-bars, whereby the latter are simultaneously depressed and similarly elevated. The tamping-bars pass through guide-plates which are adjustable in the direction of the length and width of the car, so that the ground under sleepers of any desired width can be tamped and the tamping-bars can be moved along the sides of the sleepers.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a longitudinal sectional elevation of my improved tamping-car on the line *x x*, Fig. 2. Fig. 2 is a sectional plan view of the same on the line *y y*, Fig. 1.

A vertical steam-engine, *A*, is mounted on the top of inclined struts *B* or other suitable supports on a car, *C*, carrying a steam-boiler, *D*, and a water-tank, *D'*. The lower end of the piston-rod *E* is pivoted to the inner or adjoining slotted ends of two rocking levers, *F*, mounted on transverse shafts *G*, journaled in standards *G'* at the sides of the car. Transverse rods *H* are mounted in the outer ends of the rocking levers *F*, and on these rods *H* tamping-bars *I* are mounted. These tamping-bars *I* are inclined downward and toward each other, and each passes through a separate aperture, *a*, in transverse guide-plates *J* resting on the frame of the car. Elbow or bell-crank levers *K K'* are pivoted on the car platform or floor, and have one of the ends pivoted to the transverse plates *J*, and the other ends are attached to rods *L L'*, attached to the top and bottom of a lever, *M*, pivoted to a short standard or upright on the car frame or platform. By pull-

ing this lever *M* in one direction or the other the plates *J* will be moved in the direction of their length across the car-floor. The guide-plates *J* are provided with longitudinal slots *N*, through which studs *b* pass, which project upward from sliding plates *O O'*, held to the side pieces of the car-frame, to which sliding plates *O O'* rods *P P'* are pivoted, which have their inner or adjoining ends pivoted to the upper and lower ends of levers *Q*, pivoted centrally to the side pieces of the car-frame. One of these plates—for instance, *O*—is connected by means of a rod, *R*, with the lower end of a pivoted lever, *R'*, by means of which the plates *O O'* can be moved in the direction of the length of the car. A sprocket-wheel, *S*, is rigidly mounted on a transverse shaft, *T*, journaled above the car-floor and below the engine, and provided with a crank, *T'*. A driving-chain, *V*, passes over the sprocket-wheel *S* and over a sprocket-wheel, *U*, on one of the axles of the car. By means of a connecting-rod, *W*, the crank *T'* can be connected with the lower end of the piston-rod *E* if the car is to be propelled; but in that case the levers *F* must be disconnected from the piston-rod *E*.

The operation is as follows: The car is propelled by means of the engine, sprocket-wheels, and chain, and when it is over the sleeper to be tamped the piston-rod *E* is connected with the rocking levers *F* and the engine is operated, whereby the tamping-bars *I* will be worked up and down, the lower ends of the tamping-rods moving toward each other on inclined lines when descending. The ground is thus packed or tamped under the sleeper. By pulling the upper end of the lever *M* in one direction or the other the guide-plates *J* will be moved in the direction of their length—that is, transversely over the car parallel with the sleepers—and the tamping-rods will be moved with them. The tamping-rods can thus be gradually moved along the sleeper until the ground under the entire length of the sleepers has been tamped. By means of the levers *R'* the plates *O O'* will be moved from each other, as will also the guide-plates *J*. The lower ends of the opposite tamping-bars can thus be separated more or less, as the width of the

sleepers may require. As soon as one sleeper is tamped the car is to be moved and the tamping-bars adjusted for another sleeper, and in this way the work can be very expeditiously done.

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

1. In a tamping-car, the combination, with
10 a car and a motor, of tamping-bars and rocking levers, with their inner ends connected to a piston-rod or motor and their opposite ends to the tamping-bars, whereby the latter are simultaneously depressed and in like manner
15 elevated, substantially as and for the purpose set forth.

2. In a tamping-car, the combination, with
a car, of rocking levers, a motor for operating them, tamping-bars attached to these levers,
20 and adjustable guide-plates through which the tamping-bars pass, substantially as herein shown and described, and for the purpose set forth.

3. In a tamping-car, the combination, with
25 a car, of rocking levers, a motor for operating them, tamping-bars connected with these levers, adjustable guide-plates for these levers, and devices for adjusting these plates, sub-

stantially as herein shown and described, and for the purpose set forth.

4. In a tamping-car, the combination, with
30 the engine A, of the rocking levers F, the tamping-bars I, the guide-plates J, the elbow-levers K K', the rods L L', and the lever M, substantially as herein shown and described, and for
35 the purpose of moving the guide-plates J in the direction of their length, as set forth.

5. In a tamping-car, the combination, with
the engine A, of the rocking levers F, the tamping-bars I, the guide-plates J, provided
40 with longitudinal slots N, the sliding plates O O', provided with studs b, and of devices for moving the plates O O', substantially as herein shown and described, and for the purpose
45 set forth.

6. In a tamping-car, the combination, with
the engine A, of the rocking levers F, the tamping-bars I, the guide-plates J, the sliding
45 plates O O', the rods P P', the levers Q and R', and the rod R, substantially as herein shown
50 and described, and for the purpose set forth.

WILLIAM E. DAVIES.

Witnesses:

JOHN GORMAN,
W. H. LAWALL.