2 Sheets—Sheet 1.

R. HITCHCOCK.

RAILWAY WRECKING CAR.

No. 264,832. Patented Sept. 19, 1882.

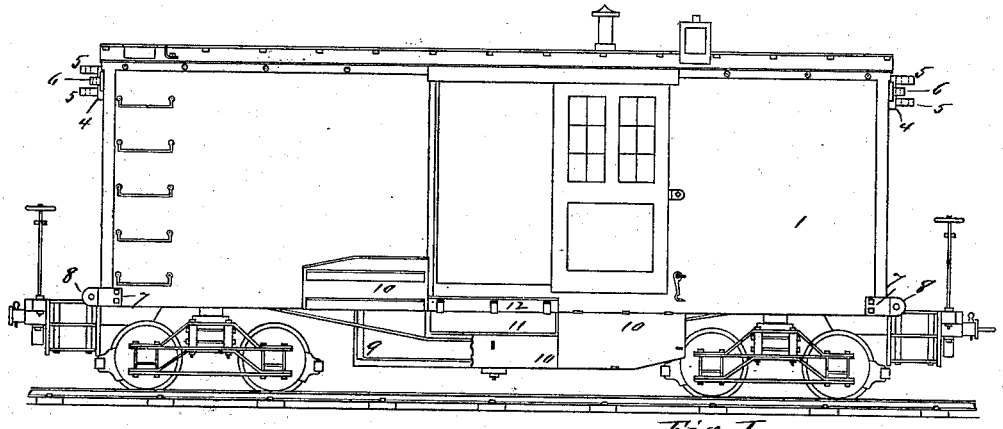

Fig. I

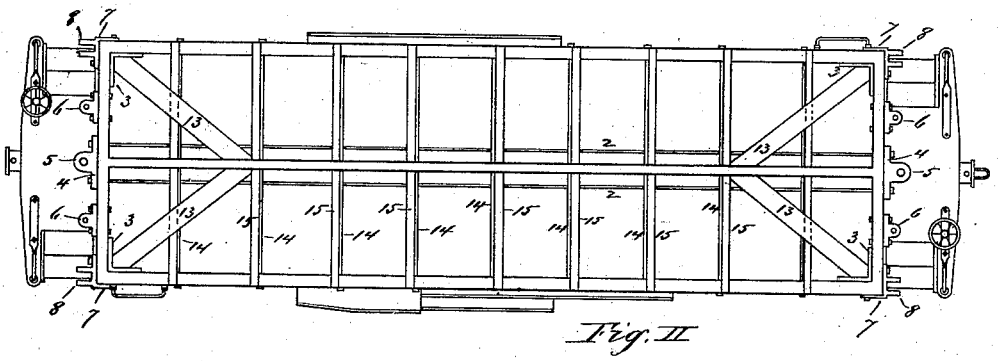

Fig. II

Witnesses.
Chas. H. Wood.
N. E. Dunnell.

Inventor.
Robert Hitchcock.
By T. Allentis.
his atty.

(No Model.) 2 Sheets—Sheet 2.

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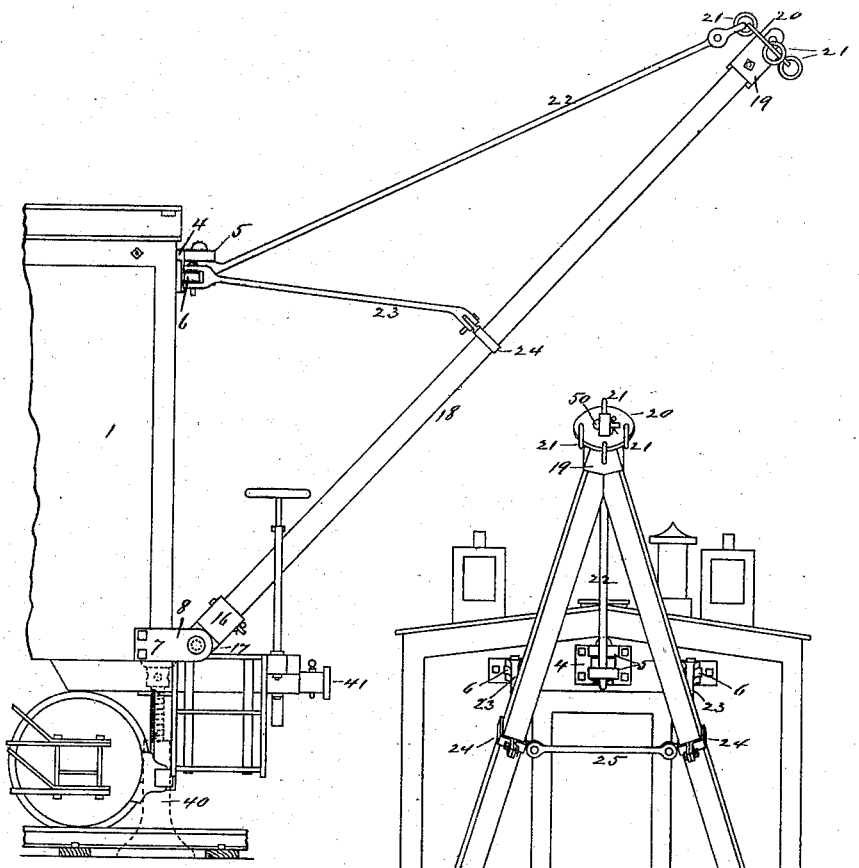

Fig. IV

Fig. III

Witnesses.
Chas. H. Wood
N. E. Dunnell.

Inventor.
Robert Hitchcock
By T. Allentis.
his Atty.

UNITED STATES PATENT OFFICE.

ROBERT HITCHCOCK, OF SPRINGFIELD, MASSACHUSETTS.

RAILWAY WRECKING-CAR.

SPECIFICATION forming part of Letters Patent No. 264,832, dated September 19, 1882.

Application filed August 2, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT HITCHCOCK, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Railway Wrecking-Cars, of which the following is a specification and description.

The object of my invention is to provide a railway-car adapted to contain and support all the apparatus required to replace cars upon the track which have been displaced therefrom, and to clear away the débris of a wrecked railway-train, and so arranged that a locomotive may be used as the power by which the heavy portions of the débris may be moved; and I accomplish this by the means substantially as hereinafter described and illustrated in the accompanying drawings, in which—

Figure I is a side view of a railway-car fitted with and adapted to receive my improved apparatus. Fig. II is a plan view of the same with the roof-boards removed, and showing the rafters or timbers and the bracing of a car, that it may be suitably strengthened to properly support the apparatus in raising and removing heavy portions of the wreck. Fig. III is an end view of the car, showing the derrick-timbers in place; and Fig. IV is a side view of the end of the car, showing the attachment of the derrick-timbers in place.

In the drawings, 1 represents a railway box-car as ordinarily adapted for use as a tool-car upon railways, except that when designed to receive and support my apparatus for wrecking purposes I strengthen it by securing angle-irons, as 3, in the corners inside by diagonal braces, as 13, extending from the longitudinal middle roof-timber to the corner of the car at each end, and, if need be, by transverse rods, as 14, extending across the car and secured to the sides, or such other appliances as may seem desirable as to the internal structure of the car.

At each end of the car, near the top, outside, and about midway its width, I secure a metal piece, as 4, provided preferably with two horizontal perforated ears, as 5, which metal pieces I bolt to the car, preferably by longitudinal rods, as 2, extending the whole length of the car and through both its ends, by which means I am enabled to secure two such metal pieces to the car, one at each end, and materially strengthen the car at the same time; and at the lower part of the car, at the end and near each corner, I bolt a step, as 7, preferably provided with two vertical perforated ears, as 8; and I also secure two other metal pieces, as 6, to the end of the car, preferably near its upper part, one each side of the piece, as 4, which pieces, as 6, may each be provided with a single perforated ear. I prefer to secure all the above metal pieces to each end of the car, so that the latter may have the hoisting apparatus applied to either end, as may be most convenient, according to the locality and the surroundings where the car may be required to be used.

Two derrick-timbers, as 18, are fitted together at their upper ends, and are so secured by a metal cap, as 19, and the extreme upper end of this cap may project through a hole in a metal plate, as 20, with a key, as 50, inserted through a hole in the projecting piece to secure the plate thereon; and this plate is provided with any desired number of metal rings, as 21, to which to secure guys or ropes, which may be secured to trees or other objects on either side of the track. The lower ends of these derrick-timbers, as 18, are separated, and when in place for use extend down and are secured to the car by an ear, as 17, which projects from a metal shoe, as 16, secured on the lower end of each timber, said ear being inserted between the ears, as 8, projecting from the step, as 7, and secured by a bolt. These derrick-timbers are held firmly in place in their inclined position on the car by a brace, as 22, secured by a bolt to the metal piece, as 4, on the car or between its ears, as 5, at one end, and with the other end secured to the plate, as 20, on the upper end of the timbers, and also by braces, as 23, secured at one end to said timbers or to fastenings, as 24, attached to the timbers and secured at their other ends to the metal pieces, as 6, and a brace, as 25, secured between the timbers, serves to hold them in that direction.

The car is provided with a frame-work, as 9, underneath, and when the derrick is not required for use the braces, as 23 and 25, are detached, the metal cap, as 19, removed from the upper ends of the timbers, the shoes, as 16, are detached from the metal steps, as 7, on the car, and, if desired, the shoes, as 16, may be removed from the timbers, although this may not be necessary, and the timbers, separated from each other, are run in endwise and rest upon the frame-work, as 9, beneath the

floor of the car. This frame-work beneath the car may also be boxed around partially and provided with doors, as 10, at the sides, so that a portion of the iron-work may be safely carried therein, if desired, and the longer rods and braces may be carried inside the car, either on the floor or in racks especially provided therefor.

Suppose a train of railway-cars to be thrown from the track and down an embankment. Upon receipt of information of the fact at the proper office this car, with a locomotive, is immediately sent with the required number of men to the locality of the accident, and the car 1 is pushed or drawn up as near as convenient to the wrecked train, the brakes applied, the wheels blocked, if necessary, and the derrick-timbers, as 18, are drawn out from their place beneath the car, the cap and plate secured to the upper ends when placed together, the brace, as 25, secured between the timbers, and both timbers, secured together at the top by the cap, are placed in upright position in front of the end of the car. One end of the brace, as 22, is then secured to the cap-plate, as 20, and the other end is secured to the metal piece, as 4, and the lower ends of the timbers are then lifted up, and the shoes, as 16, on their lower ends secured in the steps, as 7, on the corners below. The braces, as 23, are then secured in position, and, to make the end of the car more firm and solid, a jack may be placed under each corner at the end, as shown in dotted lines at 40. A guy or rope is then secured to each side ring, as 21, in the plate, as 20, and, extending out to any desired distance each side the roadway, may be secured to a tree or other convenient object, and the hoisting-tackle is secured in or suspended from the lower ring, 21, in the cap-plate.

A snatch-block may be secured to any object, as one of the rails of the track, or to any object alongside the roadway, and the long end of the hoisting-rope, extending around that, may be secured to the locomotive or tender, which is detached from the wrecking car or train, and the hoisting-block may then be secured to the wrecked cars or to parts thereof by chains or ropes, and the locomotive be run upon the same or a side track and used as the power to pull the wrecked cars up an embankment and upon the track into position to be drawn away.

By this apparatus, and with a very small number of men, a large number of wrecked or overturned railway-cars may be replaced upon the track in position to be hauled away in a very small part of the time required for removing the same cars from the same wrecked condition by the ordinary methods and with a large number of men.

Of course the derrick-timbers may be set up at either end of the car after the latter is drawn to the locality where the accident has occurred, according to the facilities for securing the guys to surrounding objects near the roadway, and to other conveniences.

The hoisting-tackle may be used in a great variety of ways in connection with this car—as, for example, the car may be placed in position, the hoisting-tackle secured to the lower ring, 21, on the plate 20, and a snatch-block be secured to one of the rails of the same track upon which the car stands, or to the bunter, as 41, and the hoisting-rope may pass entirely through the car lengthwise, and be secured to the locomotive, which may run to and fro along the track to draw upon the hoisting-rope, in which case the car will stand between the locomotive and that part of the road upon which the wrecked cars are drawn up.

In the ordinary method of replacing wrecked cars upon the track a large number of men are taken to the locality, and when the wrecking-train has arrived at the scene the locomotive generally stands idle, with the engineer accompanying it to look after it, while a large number of men are manning the hoisting-rope to draw the wrecked cars and débris upon the roadway to be hauled away.

By the use of my apparatus only sufficient men are required to raise the apparatus into position, and the locomotive is utilized as the sole power required to draw on the hoisting-rope, the engineer—who by the ordinary method is not reckoned as of any assistance in the work of restoring the wrecked cars to their position upon the track—with his engine, is the only and sole power required to move the heaviest cars to their proper position to be hauled away, and, the power being so much greater, the work is done very much more expeditiously.

The timbers or supports, as 18, I prefer to make of wood, as being light and convenient to handle, and are sufficiently strong for all practical purposes; but, if preferred, they may be of metal, as of suitable angle-iron, and provided with a fastening at the top or at one end, by which they could be easily and quickly secured together at that end, and with the opposite ends made to be secured each in its step, as 7, on the end of the car.

Having thus described my invention, what I claim as new is—

The combination, with a railway-car, of two timbers or supports adapted to be secured together at one end by a cap provided with guy-fastenings, and with the other ends separated and provided with shoes adapted to be secured in steps fastened to the lower part of the end of said car, one near each side, and fastenings secured to the upper portion of the end of the car, and braces adapted to be secured to said fastenings and to said supports, whereby the latter are held in an inclined position extending upward from the lower portion of the end of the car from which to suspend suitable hoisting-tackle, substantially as and for the purpose set forth.

ROBERT HITCHCOCK.

Witnesses:
T. A. CURTIS,
N. E. DWINNELL.