(No Model.)

H. M. LITTELL.

TRACK SCRAPER FOR RAILROADS.

No. 320,263. Patented June 16, 1885.

Fig. 1.

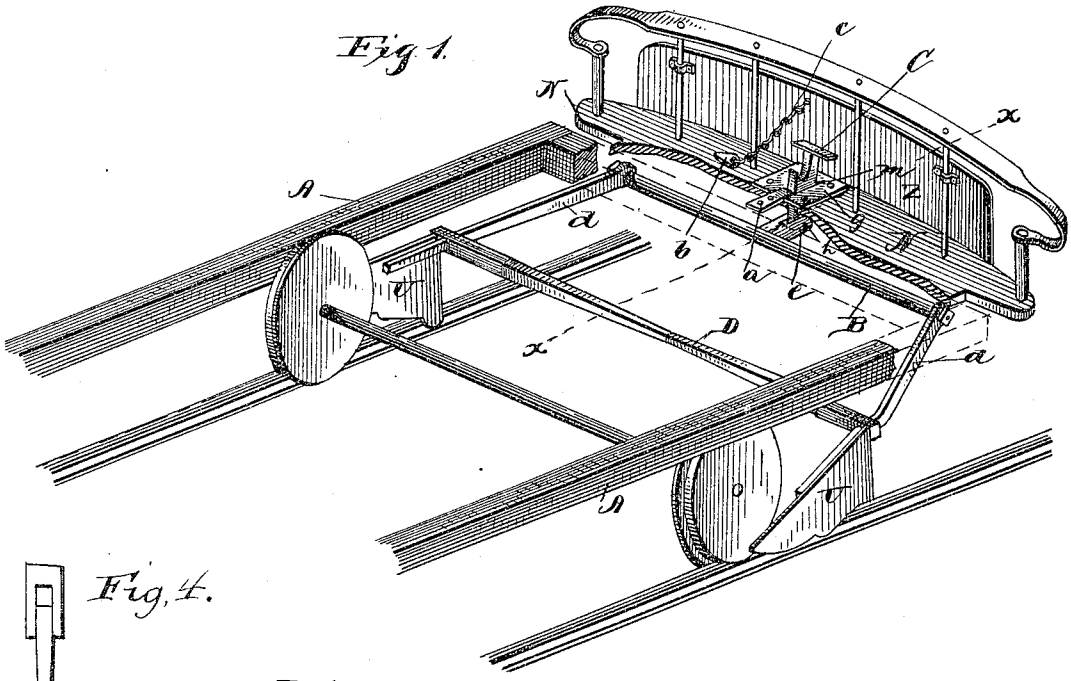


Fig. 4.



Fig. 2.

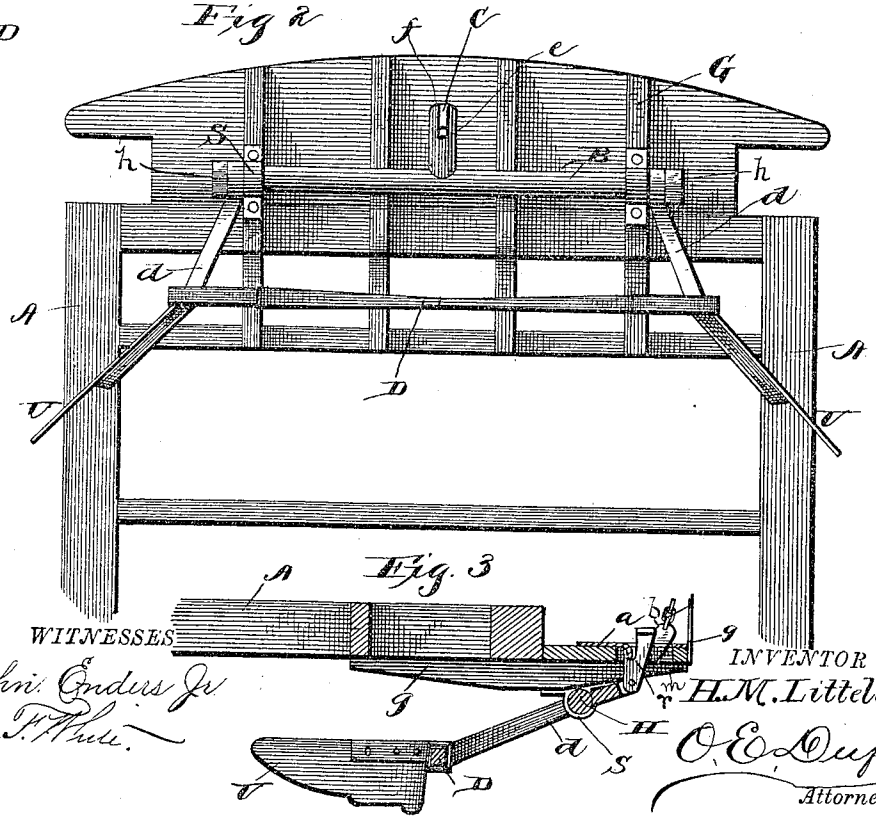


Fig. 3.

WITNESSES

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TRACK-SCRAPER FOR RAILROADS.

SPECIFICATION forming part of Letters Patent No. 320,263, dated June 16, 1885.

Application filed April 29, 1885. (No model.)

To all whom it may concern:

Be it known that I, HARVEY MITCHELL LITTELL, of St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Track-Scrapers for Railroads; 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, and to the letters of reference marked thereon, which form part of this specification.

The object of my invention is to provide a track-cleaner which shall be easily and quickly operated when it is used for the removing of snow, stones, or other obstacles that would obstruct free passage over the track, and, further, the providing of such cleaner that would successfully withstand sudden shocks or concussion without breaking or becoming disconnected in any manner; and it consists in the construction, arrangement, and combination of parts, as will be hereinafter fully described, and pointed out in the annexed specification and claims, taken together with the accompanying drawings, in which—

Figure 1 is a detail perspective view, partly in section, of a car-platform to which my improvement is attached, and showing fully the novel features. Fig. 2 is a bottom plan or inverted view of the car-platform to more fully illustrate my invention. Fig. 3 is a sectional view in detail taken on the line *x x*, Fig. 1, and Fig. 4 is a detail view of the stay brace or bar D.

Letters of reference indicate the parts referred to throughout the specification, in which—

A represents the frame of an ordinary street-car.

B represents a rock-shaft or support, of any suitable metal, and extends transversely across the front of the under part of the car, and works in the bearings or hangers S S, which are bolted to the beams *o o*. At the center of the bar B projects an arm, *e*, formed integral therewith, and is provided at one end with the rectangular recess *f*.

C represents a foot-lever, which is pivotally secured in the recess *f*, formed in the bar *e*, and works in the elongated slot *m*, formed in the platform N and plate *g*, which is designed to act as a guide for the lever. At the upper end of the lever is formed a groove, *r*, adapted to engage with the ratchet *a*, to keep the scraper elevated above the track when its service is not needed.

It is possible in many instances for the lever C to become disconnected from the ratchet *a*, caused by sudden jars when descending grades, which would result in the dropping of the scrapers, and without timely warning might cause accident. Therefore, to prevent this, I provide a wedge or key, *b*, to fit tightly in that portion of the slot *m* left vacant by the lever when the scraper or cleaner is disengaged, as in Fig. 3. To the wedge is attached a chain, *c*, which is secured to the dash-board L for the purpose of removing the wedge and keeping it within convenient reach of the driver.

d d are arms formed at a diverging angle to the rock-shaft B, and again bent to still another diverging angle, which latter angle forms the support to which scrapers *u u* are secured. These arms and scrapers are retained in place coincident to the track by stay brace or bar D, which bears against the scrapers, preventing them from slipping and working out of place. The stay-brace D forms one of the essential features of my invention. Heretofore the angle-irons carrying the scrapers extended from the rock-shaft to the scrapers without any transverse support, except perhaps angular braces, which, as a whole, served no purpose except to prevent a collapse or closing of the scrapers together, and did not serve the purpose of stiffening the frame-work and keeping the scrapers to the track, which mine effectually does. This cross-sustaining bar is made in such manner that it can be readily put onto any track-cleaner of any width. I make it ordinarily of three pieces. The brace-bar has two stub-end heads—one at each end—and straps which can be slipped on said stub-ends over the arms carrying the scrapers, and afterward either keyed, bolted, or shrunk on the stub end of the bar. This cross-bar materially and effectually stiffens the frame of the track-cleaner and keeps the scrapers in

position, thus avoiding the objection heretofore raised against track-cleaners of this character.

The arms *d d* are secured and held firmly at their upper ends to the rock-shaft B by nuts *h h*.

When the services of the scrapers are not wanted, the lever is pressed down by the foot of the driver and the groove *r* brought into contact with the ratchet *a*. Then the wedge or key *b* is dropped into the slot back of the lever, holding the cleaner mechanism firmly elevated above the track.

I am aware that track-cleaners have been in use and operated by hand-levers which are secured in proximity to the outside of the dash-board, and provided with cross-bars and angularly-set arms, with scrapers attached, and do not claim such in my combination; but

What I do claim, and desire to secure by Letters Patent, is—

1. In a track-cleaner, the foot-lever and ratchet, the plate or guide, and the wedge, in combination with the arms, substantially as described.

2. In a track-cleaner, the foot-lever, the ratchet, the wedge and chain, the plate or guide, the stay-brace, and the oscillating frame B *d'*, in combination with the scrapers, substantially as described, and for the purpose set forth.

3. In a track-cleaner, the combination of the foot-lever C, placed on the interior of the dash-board L, pivotally secured to the arm *e* and working in the guide *g*, the ratchet *a*, adapted to engage with the groove *r*, the wedge *b*, and chain *c*, and the stay-brace D, holding in place the arms *d d* and scrapers *u u*, substantially as described, and for the purpose specified.

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

HARVEY MITCHELL LITTELL.

Witnesses:
JOHN I. THOMPSON,
F. W. DAVIS.