(No Model.) 2 Sheets—Sheet 1.

C. L. HARDEMAN & A. L. GERVIN.

RAILWAY TRUCK.

No. 302,727. Patented July 29, 1884.

Fig. 1.

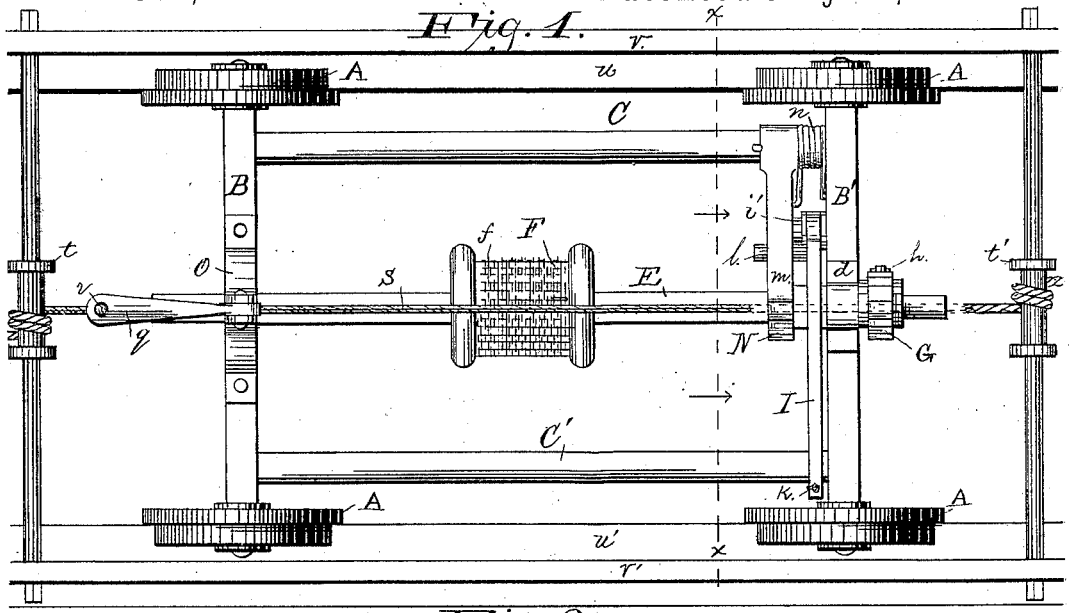
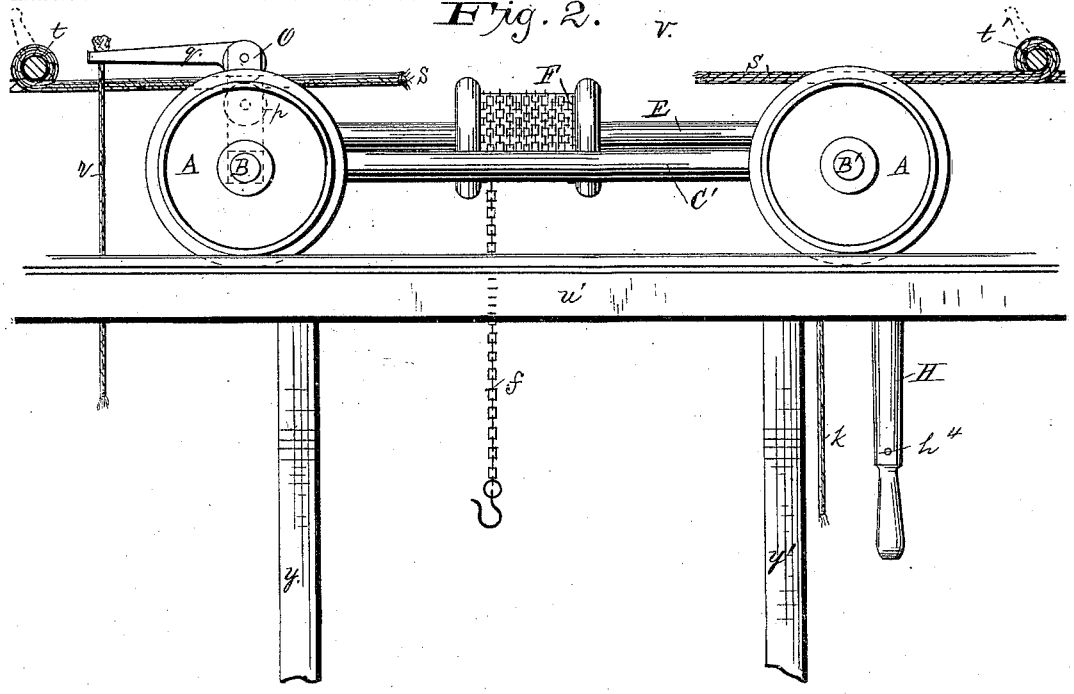


Fig. 2.



Witnesses:
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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

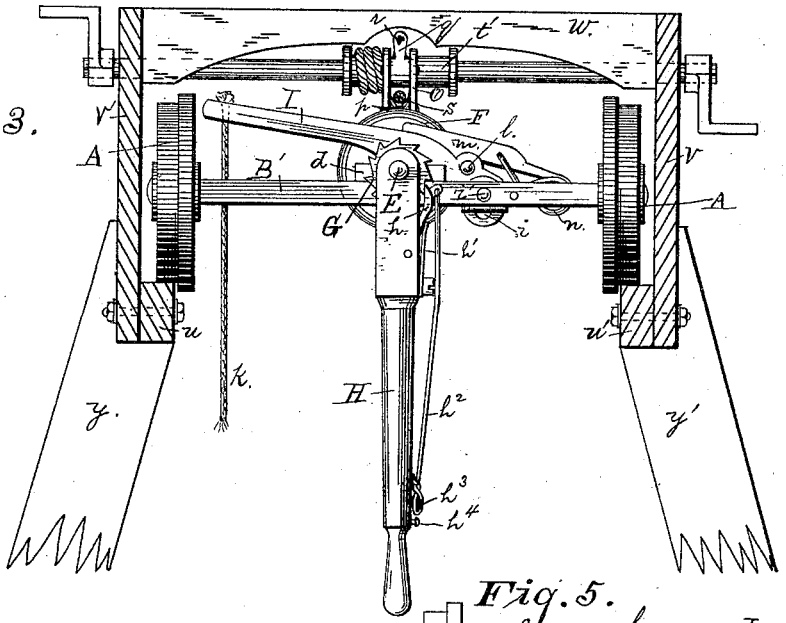


Fig. 5.

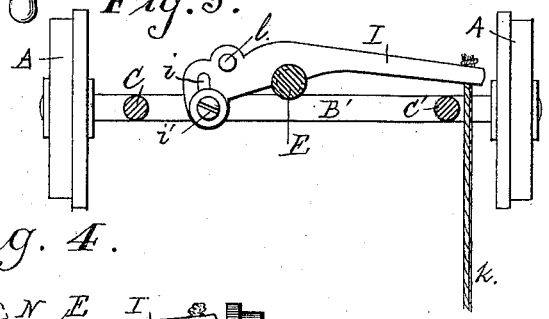
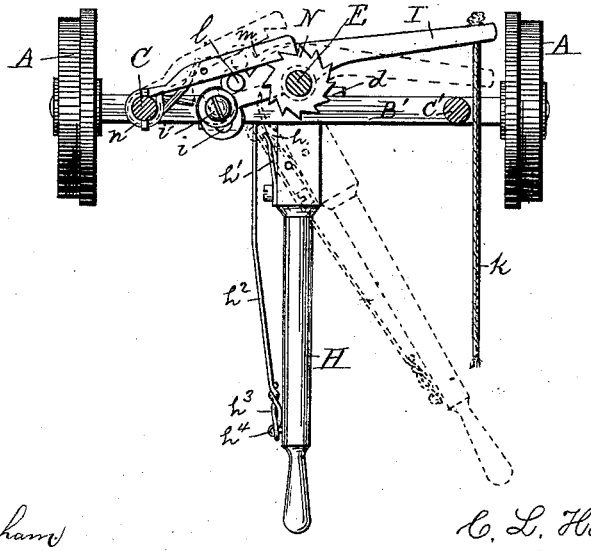


Fig. 4.



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UNITED STATES PATENT OFFICE.

CONSTANT LENT HARDEMAN AND ALFRED LORENCE GERVIN, OF NEW ORLEANS, LOUISIANA.

RAILWAY-TRUCK.

SPECIFICATION forming part of Letters Patent No. 302,727, dated July 29, 1884.

Application filed December 18, 1883. (No model.)

To all whom it may concern:

Be it known that we, CONSTANT LENT HARDEMAN and ALFRED LORENCE GERVIN, citizens of the United States, and residents of the city of New Orleans, parish of Orleans, and State of Lousiana, have invented a certain new and useful Improvement in Railway-Trucks; and we do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawings, making a part of this specification.

This invention relates to a car-truck for use on elevated or other railways having an open or clear space between the rails thereof. The object is to facilitate the transmission of articles of freight, fuel, &c., to and from watercrafts and railway-cars, as well as for carrying earth and other material from a distance for use in the construction of levees or other embankments.

The nature of the invention is clearly shown in the accompanying drawings, whereon—

Figure 1 represents a plan or top view of our railway-truck, with its supporting railway-frame, and means for imparting motion to or arresting the onward movement of the said truck. Fig. 2 is a side view of the truck and supporting railway-frame, a portion of the latter removed in order to more fully illustrate the invention. Fig. 3 is an end elevation of the truck and cross-section of supporting railway-frame. Fig. 4 is a cross-section of the truck through line *x x* of Fig. 1, the view being in the direction indicated by the arrow-points in said line. Fig. 5 is a detailed view showing the action of the brake-lever on the carrying-shaft.

On the drawings, A designates ordinary car-wheels, and B B′ the axles thereof, the latter preferably of square iron, and connected at suitable distance apart by side rods, C C′. Upon the upper surface of each axle, and midway between the wheels thereof, are journal-boxes *d*, (only one of which is shown,) for the reception of the journals of a carrying-shaft, E, on which is keyed or otherwise secured a flanged drum, F, around which operates a chain, *f*, for elevating and holding in suspension the article or articles for transportation. One end of the aforesaid shaft E is provided with a ratchet-wheel, G, and lever H, the latter having a pawl, *h*, for engaging the teeth of the ratchet-wheel, and a spring, *h′*, whereby said engagement is insured. To the rear of the free end of the pawl *h* is attached a rod, h^2, the lower end of which is provided with a ring or loop, h^3, for engaging a pin, h^4, at the side of the lever whenever it is desired to disengage the pawl and ratchet-wheel.

The letter I designates a brake-lever, one end of which is provided with a slot, *i*, to fit over a pin, *i′*, that projects inwardly from the axle B′. A cord is suspended from the outer end of the lever I, as shown at *k*, so as to permit of its operation from below; and that part of the lever which is in contact with the shaft E is recessed, so as to increase its bearing-surface thereon. The aforesaid brake-lever is provided with an inwardly-projecting pin, *l*, over which operates a pawl, *m*, that is fitted on the side bar, C, in such manner that its free end shall engage a ratchet-wheel, N, on the shaft E. The teeth of this wheel are inclined in the same direction as those of the wheel G, and the pawl *m* is held in close contact therewith by means of a spring, *n*, which has its body coiled around the side bar, C, and its ends secured to the pawl and adjacent axle, respectively, as shown in Fig. 1. The axle B is provided at or about its center with a vertical stand, O, in which is fitted a loose sheave, *p*, and a cam-lever, *q*, the latter pivoted above the former and having a cord, *r*, suspended from its outer end, to permit of its being drawn downward, and thus made to clamp a propelling or check rope, *s*, which passes between the cam portion of the lever and sheave, and which has its ends secured to or passed around windlasses *t t′*, that are journaled in the opposite ends of the track-frame.

The track-frame shown in the drawings is composed of the rails or tracks *u u′*, which are bolted to the inner sides of the side plates, *v v′*, and near the lower edges thereof, a series of cross-braces, *w*, that are secured between the upper edges of said plates for the purpose of holding them at their proper distances apart, and the legs *y y′* for supporting the same. These legs may be made extensible, and the rails can be on a level or an incline,

as found best suited for the work to be performed. If on a level, it will be necessary to draw the truck forward or backward by operating the windlass at the end of the track toward which the car is to travel, the rope being clamped by means of the cam-lever *q*. If the tracks are on an incline, the rope remains stationary, and the cam-lever is only tightened thereupon when it it is desired to check the downward course of the truck. The material to be transported is held in suspension beneath the truck by means of the chain *f*, the same being raised clear of the ground and all obstacles by operating the ratchet-lever H. When it is desired to lower and deposit the material upon the ground, the pawl *h* is disengaged from its ratchet-wheel G and secured in outward position by slipping the ring or loop h^3 of the rod h^2 over the side pin, h^4, of the lever H. The brake-lever I is then pulled downward, so as to bear upon the shaft E, by which movement the second pawl, *m*, is disengaged from its wheel N, when the material is slowly lowered by lightening the pressure on the brake-lever.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, in a car-truck having axles B B′ and side bars, C C′, of the carrying-shaft E, journaled on said axles and provided with drum F, ratchet-wheels G N, the operating-lever H, with its connecting mechanism, the pawl *m*, and spring *n*, fitted on side bar, C, substantially as and for the purpose described.

2. In a car-truck, the combination, with a brake-lever, I, having a slot, *i*, side pin, *l*, recessed bearing, as described, and cord *k*, of a shaft, E, provided with ratchet-wheel N, the pawl *m*, and spring *n*, all arranged for operation substantially as described, and for the purpose set forth.

3. In a car-truck having axles B B′ and side bars, C C′, the carrying-shaft E, journaled on said axles and provided with the drum F, ratchet-wheels G N, and operating-lever H, in combination with the pawl *m*, spring *n*, and brake-lever I, the latter provided with a side pin, *l*, and recessed bearing, substantially as described, and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

CONSTANT LENT HARDEMAN.
ALFRED LORENCE GERVIN.

Witnesses:
J. N. MÜLLER,
PETER FINNEY.