

R. Lane,
Car Pusher.
No. 107,926. Patented Oct. 4. 1870.

Fig. 1

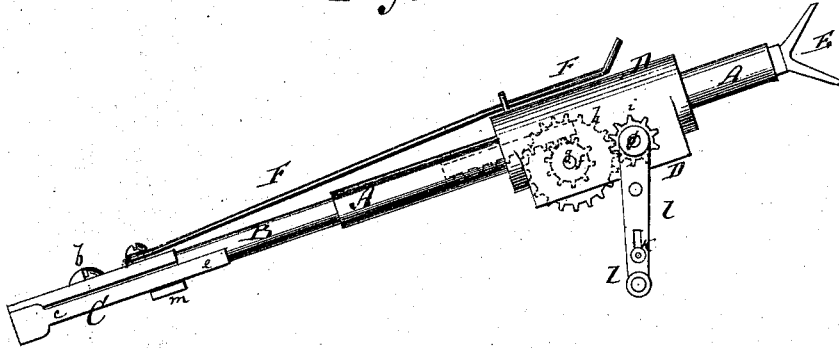
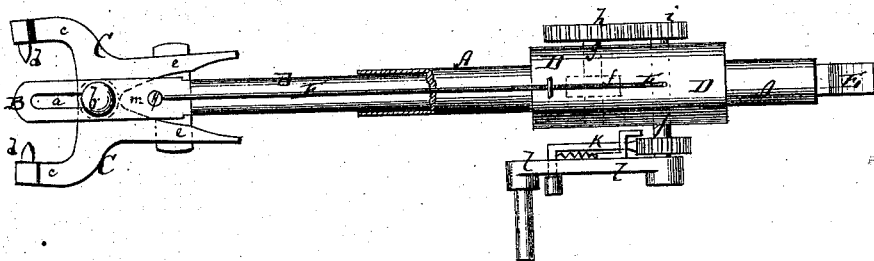


Fig. 2



Witnesses:

E. Wolff
L. J. Mabey

Inventor:

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per Wm. L.

Attorneys.

United States Patent Office.

RUFUS LANE, OF FREEPORT, ILLINOIS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO W. G. MOORE, OF SAME PLACE.

Letters Patent No. 107,926, dated October 4, 1870.

IMPROVEMENT IN CAR-PUSHERS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, RUFUS LANE, of Freeport, in the county of Stephenson and State of Illinois, have invented a new and improved Car-Pusher; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figure 1 represents a side view of my improved car-pusher.

Figure 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts.

This invention relates to a new implement for propelling railroad-cars on switches, &c., in places where engines for that purpose are not to be obtained.

The invention consists in the use of an extension-frame, which has a claw for gripping the rail at one end, and a pushing-block at the other, and can be extended by revolving a pinion, as hereinafter more fully described.

A in the drawing represents a metal tube, of suitable length.

B is a rod, fitted with one end into the tube.

The outer end of the rod B has a longitudinal slot, *a*, through which is fitted a pin, *b*, that serves as a pivot for two levers or jaws, C C, as shown in fig. 1.

The outer arms *c* of the levers C carry gripping-pins *d*, as shown. Their inner arms *e* embrace a wedge, *m*, that is affixed to the rod B.

That end of the rod B, which is concealed within the tube A, is toothed, and meshes into a small pinion, *f*, as indicated by dotted lines in fig. 1.

The pinion *f* is mounted upon an arbor, *g*, which has its bearings in a jacket, D, that is fitted upon the tube A.

Toothed wheels *h i* connect the arbor *g* with a crank-shaft, *j*, hung in the jacket. By turning the crank-shaft the rack will be drawn inwardly or outwardly, as may be desired, and the entire apparatus consequently shortened or extended.

The outer end of the tube carries a block or pushing-arm, E, which may be fastened by means of a universal joint.

The apparatus is applied in the following manner:

The rod, being drawn into the tube as much as possible, the jaws C are fitted over a rail, so that the pins *d* gripe the head of the same, while the block E is placed against the car to be pushed. The instrument stands thus in an inclined position. The crank-shaft is now turned so as to extend the instrument. By this action the wedge *m* is forced between the jaws, causing the same to automatically take a firm hold of the rail. In fact, the greater the strain, the firmer will be the hold taken by the jaws.

As the instrument is being extended, the car will be pushed ahead. A suitable degree of motion can thus be obtained.

The power obtained by the apparatus is very considerable, so that one man can do the work now done by six or more.

After the instrument has been extended, it can again be contracted either by revolving the crank-shaft, or by pulling the rod B into the sleeve by means of a handle, F, in which case the crank must be thrown out of gear. This is effected by drawing the bolt K, which connects the crank *l* with its shaft, out of the socket in the latter.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The extensible pusher for railroad-cars, consisting of the tube A and rod B, provided with the wedge *m*, the jaws C, crank-shaft, and suitable gear, substantially as herein shown and described, and for the purpose specified.

2. The jaws C, bolt *b*, slot *a*, and wedge *m*, combined and arranged substantially as specified.

RUFUS LANE.

Witnesses:

GEO. WOLF,
W. G. MOORE.