I. S. GOLDMAN.

Pushing-Bar for Railway-Cars.

No. 200,136. Patented Feb. 12, 1878.

Fig. 1.

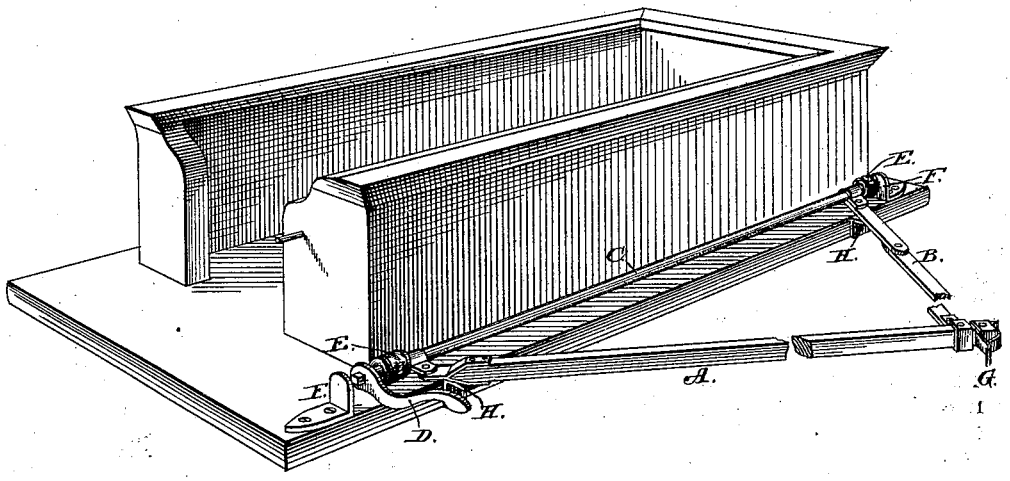
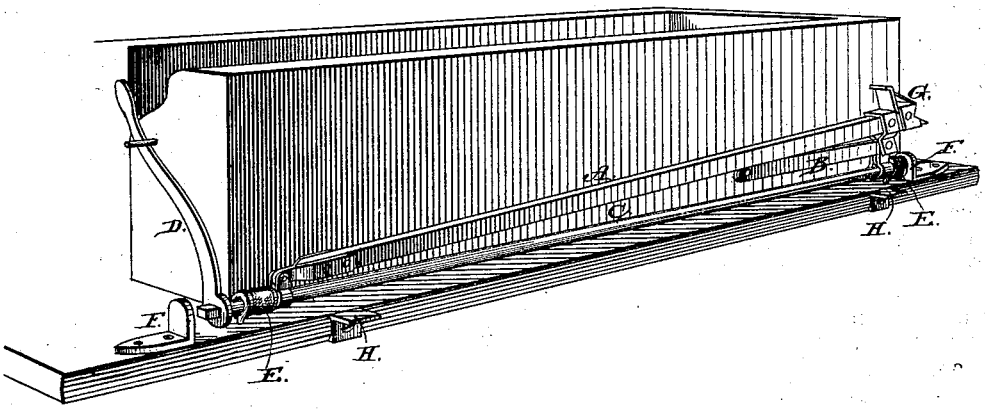


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

ISAAC S. GOLDMAN, OF EDINBURG, ILLINOIS, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES K. WYSCARVER, OF SAME PLACE.

IMPROVEMENT IN PUSHING-BARS FOR RAILWAY-CARS.

Specification forming part of Letters Patent No. **200,136**, dated February 12, 1878; application filed January 4, 1878.

To all whom it may concern:

Be it known that I, ISAAC S. GOLDMAN, of Edinburg, Christian county, State of Illinois, have invented a new and useful improvement for pushing and pulling cars on railways when the engine is on one track and the cars to be pushed or hauled are on the other track, of which the following is a specification:

The invention relates to pushing or switching bars for the use of railway-locomotives in backing cars off of side tracks while the locomotive remains on the main track. Heretofore this work has usually been done by means of a long heavy pole, which is taken up when used by two brakemen or other employés of the railway company, and one end of it placed against the rear end of the tender, and the other end placed against the forward end of the car to be backed off. Then the locomotive is reversed and put in motion, backing rapidly until the car is under good headway, when the locomotive is suddenly stopped, allowing the pole to fall to the ground. This method is very objectionable: First, on account of the delay in finding and handling this pole, which is often covered by mud or snow, and which is a very disagreeable thing to handle, and often causes long delays in getting the pole to work at all. Second, it is very objectionable on account of the danger in using it, for as the locomotive is backing rapidly it cannot be stopped at once, and as soon as it slacks in the least the pole falls, and is liable to bound under the wheels of the locomotive and throw it from the track.

The object of my invention is to provide a system of pushing and switching cars that will do away with all unnecessary delays and dangers that the present system involves.

Figure 1 of the drawings shows the pushing-bar and its attachments as it appears when attached to the tender of a locomotive and in the act of pushing a car on the side track. Fig. 2 shows the pushing-bar and attachments when not in use and folded by the side of the tender.

The rod C is placed horizontally along the side of the tender of the locomotive, and is secured to the sill of the tender by means of eyebolts or hinges. To the forward end of the rod C is attached the forward end of the push-bar A by means of a very strong hinge-joint, welded firmly around the rod C. The rear end of the rod C is provided with a similar joint, to which is attached the jointed arm B. The outer end of the jointed arm B is attached to the rear end of the pushing-bar A by means of a joint that is part of the casting G, which casting forms the end band of the pushing-bar A, and also the pulling-hook used in pulling cars forward. The jointed arm B is provided at the middle joint with an extension inward from the joint of the outer section of the arm B, which extension acts as a support to the arm when the arm is straight. The horizontal rod C is provided at each end with a heavy rubber ball, E, through which it passes. Said rubber ball is situated between the forward eyebolt or hinge and the forward hinge-joint of the pushing-bar A. The ball E of the horizontal rod at the rear end is situated between the hinge-joint where the jointed arm is attached and the rear eyebolt or hinge.

The object of the rubber balls E E is to act as a spring to receive the first pressure of the pushing-bar when it comes in contact with the car to be pushed or pulled.

When the ball E is compressed the end of the horizontal bar comes in contact with the casting F, which then receives the full pressure of the pushing-bar A.

The castings F F are securely fastened to the sill of the tender by means of bolts or otherwise.

A lever, D, is provided at the forward end of the horizontal rod C, by means of which the pushing-bar is raised or lowered, at the pleasure of the operator.

Castings H H are secured to the sides of the tender-sill at each end of the horizontal rod, one being directly under the jointed arm B, the other under the forward end of the pushing-bar A, to act as a support to the jointed arm B and the pushing-bar A when the bar is lowered.

What I claim is—

1. The combination of a pushing-bar, A, with a jointed arm, B, and end band and hook G, substantially as described.

2. The combination of a pushing-bar, A, and jointed arm B, and end band and hook G with a horizontal rod, C, provided with joints and bearings, substantially as described.

3. The combination of a pushing-bar, A, and jointed arm B, end band and hook G, and rod C with rubber balls E E, castings F F, lever D, and castings H H, substantially as described.

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Witnesses:
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