(No Model.)

S. L. FINLEY.

Bell-Cord Guide for Railway-Cars.

No. 228,253. **Patented June 1, 1880.**

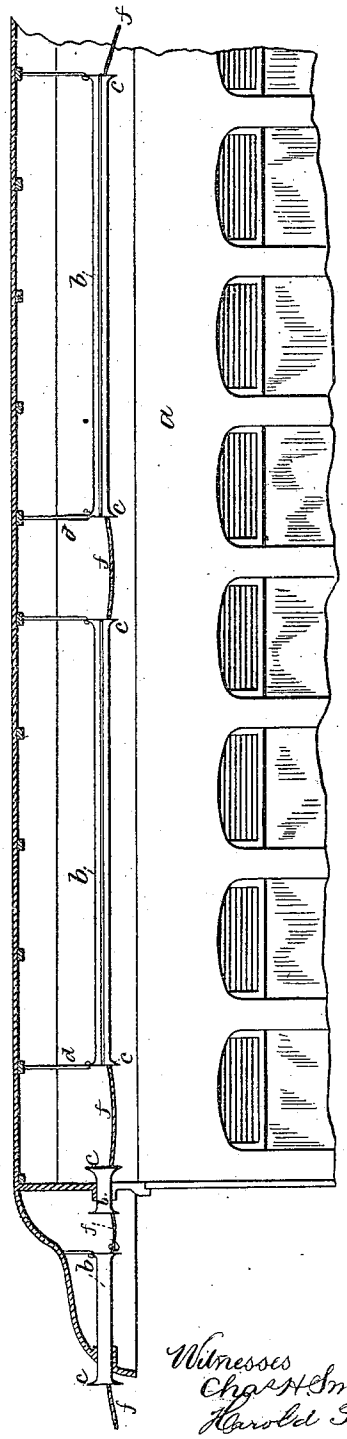


Fig. 1.

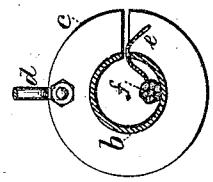


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

STEPHEN L. FINLEY, OF BROOKLYN, E. D., NEW YORK.

BELL-CORD GUIDE FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 228,253, dated June 1, 1880.

Application filed April 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, STEPHEN L. FINLEY, of Brooklyn, E. D., in the county of Kings and State of New York, have invented a new and useful Improvement in Bell-Cord Guides for Railroad-Cars, of which the following is a specification.

Bell-cord guides for railroad-cars, as at present constructed and in use, consist of a strap suspended from the roof of the car and having a loop and wheel, or simply a loop, through or over which the bell-cord passes, and by which said bell-cord is suspended over the heads of passengers.

When a car or part of a train becomes disconnected by the breaking of a coupling, or when part of a train is left at a station because carelessly coupled, the bell-cord, which is always secured at the end of the train as well as at the engine, is broken, and the portion that remains connected to the engine is drawn rapidly through the detached cars at the risk of injuring passengers, breaking the glass in the car-doors, breaking and tearing down the lamps, or tearing and injuring the ornamental head-lining in the cars, and the repairs of such damages are generally very expensive.

My invention is designed to obviate the aforesaid difficulties, to facilitate the easy stringing of the bell-rope through the cars, and to allow the conductor to use the bell-cord for signaling with the same facility as heretofore; and said invention consists of a slotted or open tube, bell-mouthed at each end, and suspended from the ceiling of the car by suitable rods or other connections.

In the drawings, Figure 1 is a section of the upper part of a railroad-car, showing the bell-cord and guide in elevation; and Fig. 2 is a cross-section of the tube and bell-cord.

The railroad-car *a* may be of any desired construction or design.

The slotted or open tube *b*, which forms the guide for the bell-cord, is made bell-mouthed at each end *c*, and it is suspended from the ceiling of the car by hangers *d* or other proper connections between the guide-tube and ceiling or other interior portions of the car.

Any number of these tubular guides may be used in a car; but I prefer three at equal distances apart in the inside of the car and two at each end, projecting the one through the hood and the other through the end of the car, and so placed that a space of eight to twelve inches is left between them, where the conductor can grasp the bell-cord to signal the engineer.

This tubular bell-cord guide is slotted or open along its whole length at one side, and I provide a leather thong, wire, or cord, *e*, which is attached to the bell-cord *f* behind the metallic coupling-link. This thong is grasped in the hand of the attendant when the bell-cord is being strung through the tubes, said thong being passed through and drawn along in the slot while the bell-cord is inside the tube, as shown in section, Fig. 2. By this means the stringing of the bell-cord can be done even more rapidly than by the old means of passing the cord through the strap rings or loops.

If, through any accident, a bell-cord should break on a train of cars fitted with my improved guides, or the said cord be drawn along rapidly through such guides, the cord is kept within such tubular guides and cannot fly out, to the detriment of life or property, as there is only a few inches space between the funnel ends of the separate tubes.

The tubes extending through the end of the car and hood may be solid or slotted, as may be preferred. They can be solid, because, being short, the bell-cord can easily be pushed through them.

These bell-cord tubes or guides may be ornamented, plated, or finished externally in any desired manner.

I claim as my invention—

1. The slotted tubular bell-cord guides supported within the railway-cars, and constructed and operating substantially in the manner and for the purposes set forth.

2. The slotted tubular bell-cord guide *b*, in combination with the bell-cord *f* and thong *e*, substantially as set forth, so as to facilitate the stringing of the bell-cord through the cars.

Signed by me this 19th day of April, A. D. 1880.

STEPHEN L. FINLEY.

Witnesses:

GEO. T. PINCKNEY,

HAROLD SERRELL.