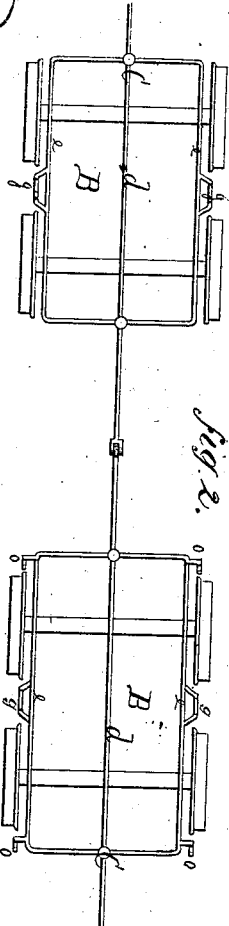
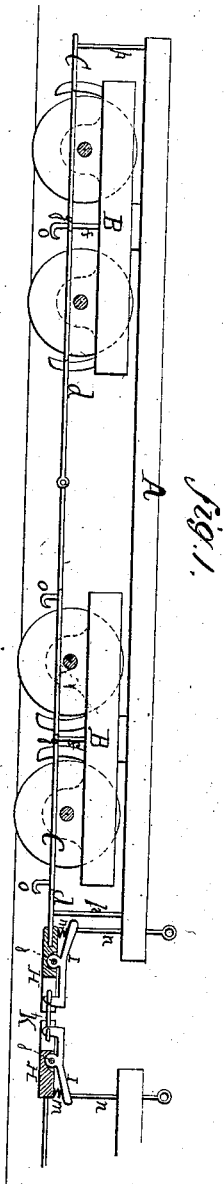


115003

Francis E. Whiteside.
Railway Alarm Appr.

PATENTED MAY 16 1871



Witnesses:
John H. Hagan
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UNITED STATES PATENT OFFICE.

FRANCIS E. WHITESIDE, OF OXFORD, PENNSYLVANIA.

IMPROVEMENT IN RAILWAY-ALARMS FOR TRUCKS.

Specification forming part of Letters Patent No. 115,003, dated May 16, 1871.

To all whom it may concern:

Be it known that I, FRANCIS E. WHITESIDE, of Oxford, Chester county, State of Pennsylvania, have invented an Improved Railway-Alarm Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal section of a railway-car, showing the application of my alarm apparatus; and Fig. 2 is a bottom view of the same.

Similar letters of reference in the accompanying drawings denote corresponding parts.

My invention has for its object to provide means for notifying the engineer of a train of cars when any car is off the track, or when a train becomes broken by the separation of the cars; and to this end it consists in a frame-work of iron rods, provided with stops suspended from the car-trucks, so that the stops shall be in line with the flanges of the wheels, slightly above the rail, said frame-work being connected by suitable means with an alarm upon the locomotive, whereby, if a car runs off the track, or the rails become broken, the stops shall catch in or against the ties of the road, and so pull the whole system of rods toward the rear of the train and sound the alarm.

The rods of one car are connected to those of another, and so on throughout the entire length of the train by couplings which are adapted for operation from the platforms of the cars.

In the drawings, A is the platform of a freight or passenger car, mounted upon trucks B, in the usual manner.

C is a frame-work of iron rods of suitable size, consisting of the central rod *d* and the parallel side rods *e e*, united to the former, as shown in Fig. 2.

The area of the frame-work thus produced corresponds to the area of the truck between the wheels, and is suspended from said truck beneath the axles by means of the short rods *f*, which fit into the loops *g*, formed centrally upon the parallel rods *e e*, as shown, the connection being such that the loops shall slide through the eyes of the rods *f* when the frame-work is moved.

The central rod *d* is jointed between the truck of each car, so that the frame-work shall at all times conform to the lateral motion of the trucks. The frame-work is steadied beneath the car by means of the pendent arms *p* at the ends of each car.

In passenger-cars the brakes are usually applied to the outside of the wheels, as shown upon the left of Fig. 1, and between the wheels in freight-cars, as shown upon the right of Fig. 1.

In the former case I arrange a series of stops or pendants, *o*, upon the center of the frame-work—say at the loops *g*—which extend downward toward the rails, in line with the flange of the wheels. In the latter case I place the stop at the corners of the frame, outside the wheels, as shown upon the right of Fig. 1.

The frame-work of one car is connected to that of another by a coupling composed of the socket H, slotted upon the top to receive the end of a lever, I, which is pivoted to said socket, as shown at *j*.

The lever forms a draw-bar, to receive and hold the link K. The draw-bar is held within the socket by a spring, *m*, placed under the outer arm of the lever, which arm carries also a rod, *n*, extending upward through the platform of the car. The rod *n* serves to depress the free end of the lever when it becomes necessary to uncouple the cars.

If desired, the rods may be swiveled to the levers and provided with lateral pins, so that when the levers are depressed the rods may be turned to bring the pins under the platform of the cars, and thus hold the draw-bars raised for the removal or insertion of the coupling-link. The frame-work of the first car is connected to an alarm upon the engine by any suitable means.

The operation is as follows: If a car from any cause gets off the track while the train is in motion, the wheels, of course, drop down beside the rails, and thus bring the stops *o* of the frame-work in contact with the ties. The contact of the stops with the ties holds the frame-work stationary, while the cars move ahead, which movement causes the rod *d* of the frame-work to pull back and sound the alarm upon the locomotive, as will be readily understood.

Having thus described my invention, what

2 I claim as new therein, and desire to secure by Letters Patent, is—

1. A railway-alarm apparatus, consisting of sliding stops suspended from the trucks of the cars, and adapted for connection to the bell-cord or other alarm upon the locomotive, so that when a car gets off the track the stops shall come in contact with the ties of the road and be held stationary, while the car moves forward to sound the alarm, substantially as herein described.

2. The sliding frame-work C C, with suitable connections, in combination with a railroad-car, substantially as described, for the purpose specified.

FRANCIS E. WHITESIDE.

Witnesses:

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