No. 758,398. PATENTED APR. 26, 1904.

S. N. WILCOXSON.

SIGNAL OPERATED BY CAR BRAKE BEAMS.

APPLICATION FILED JAN. 13, 1904.

NO MODEL.

Fig. 1.

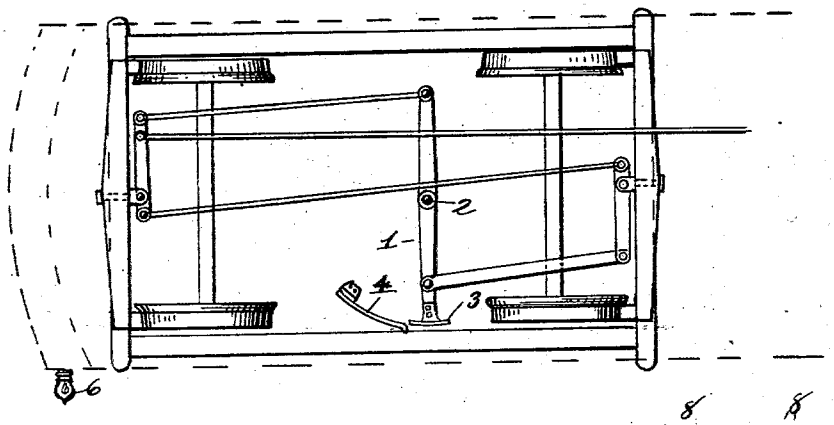


Fig. 2.

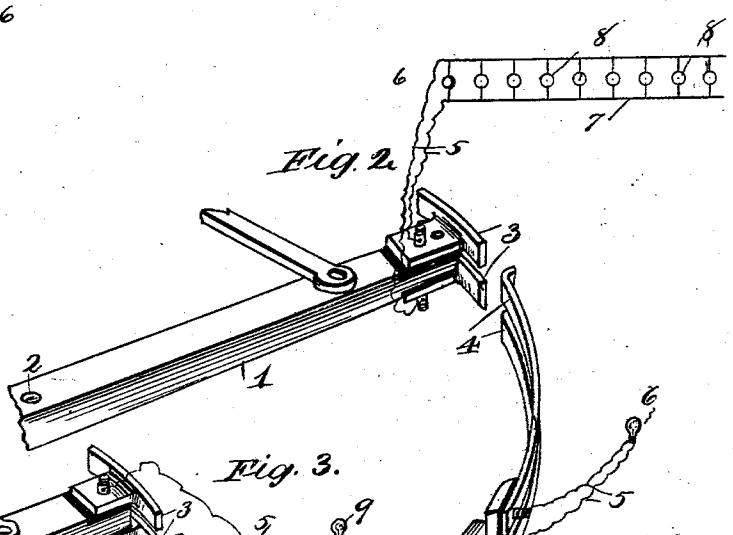
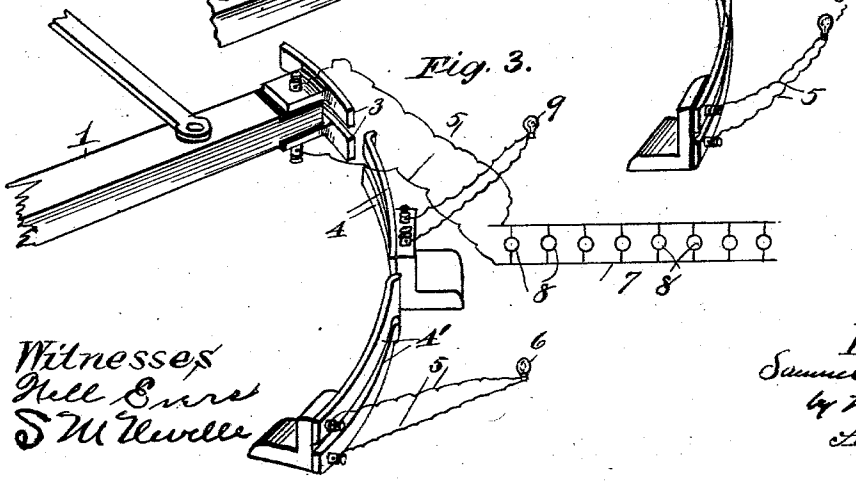


Fig. 3.



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No. 758,398. Patented April 26, 1904.

UNITED STATES PATENT OFFICE.

SAMUEL N. WILCOXSON, OF COLLINWOOD, OHIO.

SIGNAL OPERATED BY CAR-BRAKE BEAMS.

SPECIFICATION forming part of Letters Patent No. 758,398, dated April 26, 1904.

Application filed January 13, 1904. Serial No. 188,816. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL N. WILCOXSON, a citizen of the United States, and a resident of Collinwood, county of Cuyahoga, State of Ohio, have invented certain new and useful Improvements in Signals Operated by Car-Brake Beams, of which I hereby declare the following to be a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its objects to provide an efficient and reliable device for operating a signal-light to indicate that a car is stopping, and so prevent danger of a rear collision from running cars that cannot otherwise be made cognizant in the dark of the position of the stationary car.

This invention is especially adapted for use upon electric suburban roads, but is not limited in use to any class of rolling-stock.

The invention consists, primarily, in an electric switch operated to close a lamp-circuit at the moment of swinging the main brake-lever to stop the car; and it consists, further, in the details of construction and combination of parts shown in the accompanying drawings and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of the bottom of a car, showing the brake-levers and brakes and switch whereby the lamp-circuit is opened and closed. Fig. 2 is a plan view of the main or "dead" brake-lever, upon the cavity of which is shown a terminal point adapted to make or break the connection with a metal arc which forms the opposite terminal of a lamp-circuit which includes a red light. Fig. 3 is a similar view of the device arranged to include a green lamp alternately with a red one.

In the views, 1 represents the main or dead brake-lever, which is pivoted at 2, so as to swung freely in either direction. 3 3 are metal contact-plates upon the beam, but insulated therefrom and arranged to make contact as the lever swings with the spring-contact plates 4 4, secured upon any permanent portion of the frame of the car or trucks conveniently near. The plates upon the lever are terminals of the broken two-wire circuit 5 of the lamp 6, and the spring-plates 4 are also terminals. The lamp 6 may of course be placed wherever desired at the rear of the car, and if red should show only when the beam 1 is swung to set the brakes. If a green light is desired to show, the contact-springs may be separated in two portions 4 and 4', insulated or separated from each other, and the outer portions may be elongated, so as to make the first contact with the beam 1 or to make contact when the brakes are not set to indicate a following car or section, as in Fig. 3.

In Fig. 3, 7 is the lamp-circuit, 8 the lamps of the car, and 9 the green light.

The advantages of the device are obvious, since the signals will be automatically set and all dangers of collisions in the dark be avoided.

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

1. The combination with a street-car and "dead" brake-lever, of contact-plates secured to said lever but insulated therefrom, spring-contacts adapted to engage therewith when the lever is swung to set the brakes, and secured to a relatively stationary portion of the car, but insulated therefrom, and an electric circuit having its terminals in said plates and spring-contacts and a signal-lamp in said circuit, substantially as described.

2. The combination with the operating brake-lever of a car, of insulated contact-plates thereon, corresponding spring-contacts secured to a relatively stationary portion of the car, and a lamp-circuit and lamp, substantially as described.

3. The combination with the operating brake-lever of a car, of insulated contact-plates thereon, corresponding spring-contacts secured to a relatively stationary portion of the car, and separated into a plural number of sections insulated from one another, and a lamp-circuit and lamps, the terminals of which are located in said plates and spring-contact sections.

In testimony whereof I hereunto set my hand this 14th day of December, 1903.

SAMUEL N. WILCOXSON.

Witnesses:

C. A. BURRILL,

CHARLES EWEN.