

No. 778,729.

PATENTED DEC. 27, 1904.

S. N. WILCOXSON.  
BRAKE OPERATED SIGNAL OR TAIL LIGHT.  
APPLICATION FILED JUNE 7, 1904.

Fig. 1

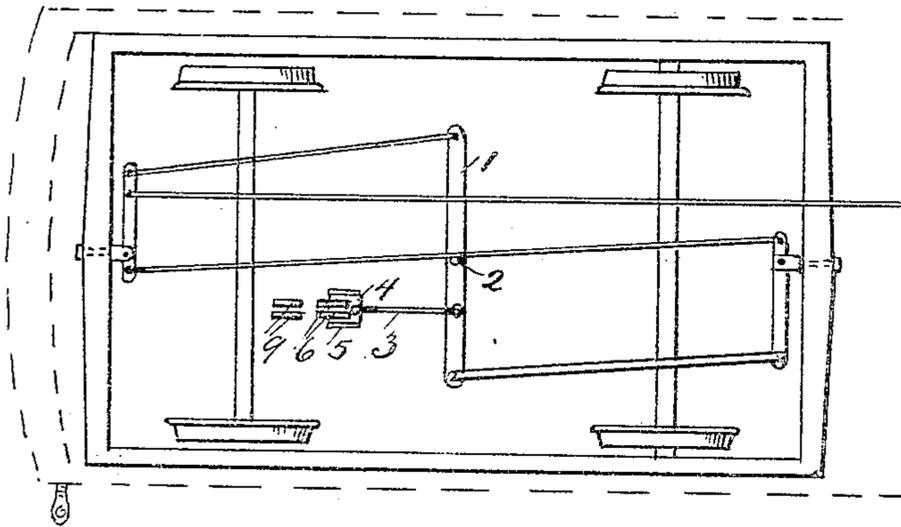


Fig. 2

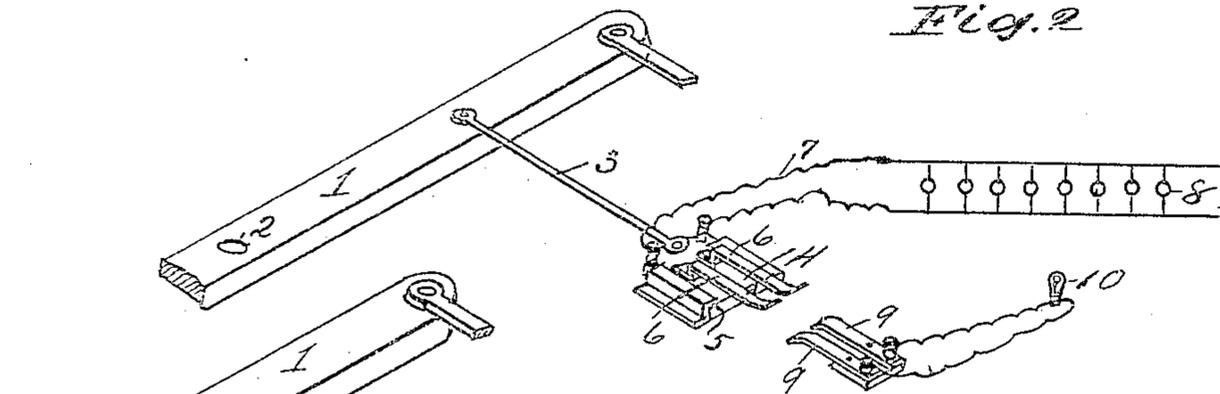
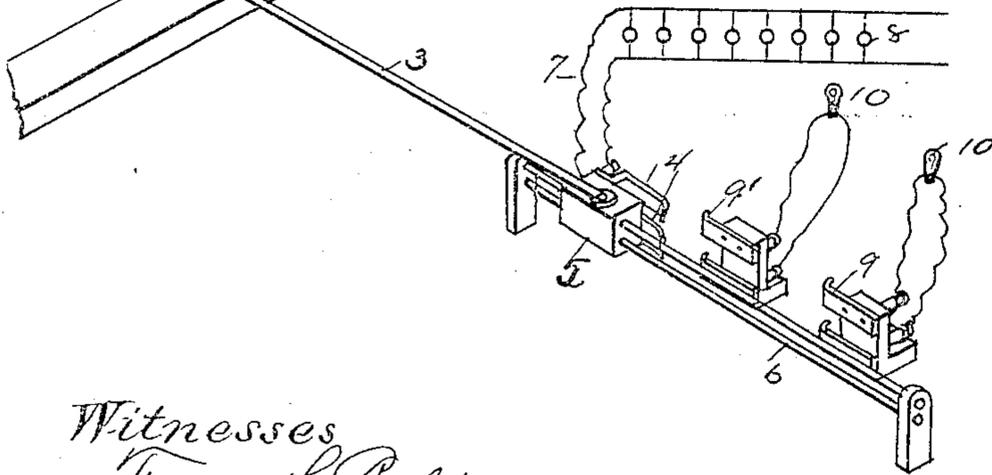


Fig. 3



Witnesses  
Frank L. Baldwin  
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# UNITED STATES PATENT OFFICE.

SAMUEL N. WILCOXSON, OF COLLINWOOD, OHIO.

## BRAKE-OPERATED SIGNAL OR TAIL LIGHT.

SPECIFICATION forming part of Letters Patent No. 778,729, dated December 27, 1904.

Application filed June 7, 1904. Serial No. 211,482.

*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 Brake-Operated Signal or Tail Lights, 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 a reliable and practical device for operating a signal-light to indicate that a car has stopped and is stationary on the track and to so prevent danger of a rear collision from moving cars in the rear that cannot otherwise be made cognizant in the dark of the stationary condition of the car until it is run into. This device, similar to my Patent No. 758,398, of April 26, 1904, 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 consists of intermediate mechanism between the brake and switch whereby the switch is opened and closed by the agency of said brake-beam, and consists, further, in the construction and combination of parts, as hereinafter described, shown in the accompanying drawings, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a plan view of the bottom of a car, showing the brake-levers, brake-beam, switch, and intermediate switch-operating mechanism whereby the signal-lamp circuit is opened and closed. Fig. 2 is a perspective view of the main or "dead" brake-lever, the metal terminals or contacts of a switch which is adapted to make or break the signal-lamp circuit, and mechanism controlled by the said brake-lever for operating the moving terminal plates of the switch. Fig. 3 is a similar view of the device arranged to include a green lamp in the circuit alternately with a red one.

In the views, 1 is the main brake-lever, pivoted at 2 upon the body of the car, so as to swing freely in either direction. 3 is a link or connecting-rod pivoted at one end to said brake-lever and at the other end to a reciprocating plate 4, which moves in guides 5 upon any convenient part of the car-body or its attachments. Upon this plate are secured the metal contacts 6, which form terminals for the lamp-circuit of the car-lamps 1, (indicated at 7.)

8 represents, preferably, the car-lamps, since the signal-lamps can most readily be included in the lighting-circuit of the car.

The circuit is represented as a two-wire circuit, and the opposite terminals 9 are fixed in convenient position to the first-named terminals 6, so that as the brake-lever moves the adjacent terminals are brought into contact or withdrawn therefrom. The action of the brake-lever to brake the wheels is such as to bring the opposing terminals into contact and complete the circuit of a signal-lamp 10, which may be placed wherever most visible at the rear end of the car, which, if red, should only show when the brakes are set or being set. If a green light is also desirable for any purpose, the contact plates or springs, which are stationary upon the car, can be separated into sections 9 and 9' or insulated from one another. The contacts upon the sliding plate will then first engage the spring-contacts 9' and glow the green lamp 10 to indicate a following car. This can be accomplished by means of a slight movement of the brake-lever not sufficient to set the brakes; but when the brake-lever is swung far enough to set the brakes the second section of terminal springs 9 will be engaged and the red light will glow as before described. In this manner the danger-signal will be set by the act of setting the brakes and independent of any special act of the motorman.

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

The combination with a car, a main brake-lever pivoted thereon, a lamp-circuit for the car and a signal-lamp and circuit, of contact-

terminals for the lamp-circuit of the car, said terminals being movable, relatively fixed contact-terminals for the signal-lamp circuit, and means whereby the movements of the movable contact-terminals are controlled by the movements of the brake-lever, consisting in a movable plate or cross-head upon which the said movable contacts are secured, and a con-

necting means between said plate and said lever, substantially as described. 10

In testimony whereof I hereunto set my hand this 26th day of April, 1904.

SAMUEL N. WILCOXSON.

Witnesses:

WM. M. MONROE,  
GEO. S. COLE.