

UNITED STATES PATENT OFFICE.

WILLIAM HERRMAN, OF DETROIT, MICHIGAN, ASSIGNOR OF TWO-THIRDS
TO WILLIAM H. SPICER AND JAMES WHITTEMORE, OF SAME PLACE.

CAR-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 552,125, dated December 31, 1895.

Application filed February 4, 1895. Serial No. 537,289. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HERRMAN, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Signal-Lights for Railway-Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention consists in the construction of a flash-light for railway-cars adapted for use on cars of modern construction, and which may be driven from the wheel or its axle and when the cars are in motion be constantly
15 driven regardless of the uncertain lateral or vertical motion of such wheel or axle.

The invention further consists in the construction of such a flash-light that when the train is at rest a light will always be exhibited, and in the forward motion of the train certain contrasting colors will be exhibited, and in the backing of the train other contrasting colors will be exhibited, so as to indicate to the engineer of an approaching train whether the
20 train ahead is moving forward, backward, or standing still. It will also indicate the speed at which the train is moving in either direction.

The invention further consists in the combination, arrangement, and construction of the various parts, all as more fully hereinafter described.

In the present state of the art it is the usual practice on railway-cars to place a red light
35 on the rear end, which gives the danger-signal to approaching trains; but such lights do not let the engineer of an approaching train know whether the train ahead of him is going ahead or standing still, or the rate of speed
40 at which it is moving, and many accidents have occurred for this reason.

Flash-lights have been devised heretofore to be applied in such a place as this; but as far as I am aware such flash-lights have not
45 had actuating devices which could be applied to modern cars to maintain during the movement of the cars a constant motion regardless of the uneven movements of the wheel or axle from which they were driven; nor have such
50 flash-lights presented at all times a danger-

signal, nor have they had the other advantages which are set forth for my construction.

In the drawings, Figure 1 is an elevation of my device, partly in section, showing in dotted lines the ordinary freight-caboose and in full lines one pair of wheels of the truck thereof. 55 Fig. 2 is a sectional elevation of my device. Fig. 3 is a detached perspective view of the color-plate frame or slides. Fig. 4 is a vertical section on line *xx* of Fig. 1. 60

A shows, in dotted lines, the well-known freight-caboose which is usually attached to the rear end of a freight-train. B indicates one pair of wheels of the truck; C, the axle connecting those wheels, all of known and 65 usual construction. Centrally of this axle I clamp on a sleeve D, preferably made in two parts and of any suitable material, as shown in Fig. 2, and secured in position by clamping rings or bands D' at the end, this sleeve being 70 located in the middle of the axle and being of sufficient length to permit of the turning of the truck upon its pivot and yet maintaining the wheel E in contact with the sleeve. The wheel might bear directly upon the axle if it 75 were not for the wear which might result from the use of the device.

The wheel E is provided with a central shaft or hub F, projecting on opposite sides thereof, and its ends are supported in the vertical 80 slotted brackets F' secured underneath the car, being held in contact with the axle either by suitable weights or by spring G in the brackets. By having this wheel supported 85 free to slide vertically I am enabled to maintain contact between it and the axle with the proper friction to drive it no matter how much the axle may change its relation to the car by vertical movement.

From the description thus far given it will 90 be seen that I am enabled to maintain a driving connection between the axle and the wheel regardless of the horizontal oscillation on the vertical movement of the axle which takes place in the modern truck in movement of the 95 car.

To disengage the wheel from driving contact with the axle any suitable device may be applied. That which I have shown consists of the yoke G', to the upper end of which is 100

light and colored flash plates in the frames, being arranged in reverse order in the two frames, substantially as described.

4. In a flash light for railway trains, the combination with the lantern, of a slide having two frames one on either side of the lantern, means for reciprocating said slide, and colored flash plates in the frames, being arranged in reverse order in the two frames, substantially as described.

5. In a flash light signal for railway cars, the combination in the actuating means therefor, of the rock shaft supported in bearings on the car body and the crank carried by said rock-shaft, the vertically adjustable wheel resting centrally on the car wheel axle, and a cam striker thereon adapted to engage and actuate the said crank, substantially as described.

6. In a flash light for railway cars, the combination with the reciprocating actuating rod for the flash plates and the spring for normally holding the danger plate opposite the light, of the rock-shaft operatively connected with said reciprocating rod, a crank arm carried by the shaft, the vertically yielding wheel resting centrally on the car wheel axle, a striker carried by said wheel and adapted to engage and actuate said crank arm, and means for lifting said wheel from engagement with the axle, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HERRMAN.

Witnesses:

M. B. O'DOHERTY,
L. J. WHITTEMORE.



(No. Model.)

T. J. HERRING.
HORSE COLLAR.

No. 552,126.

Patented Dec. 31, 1895.

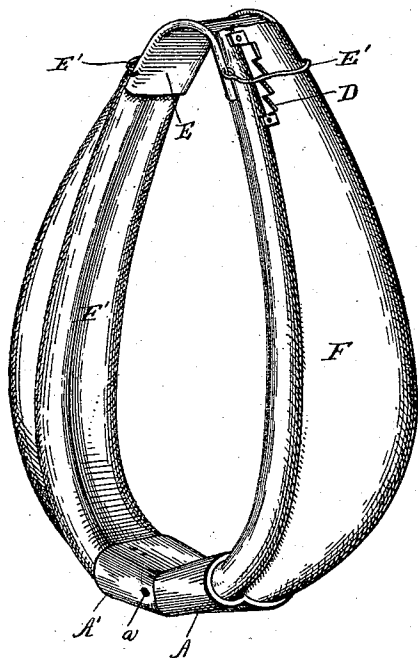


Fig. 1.

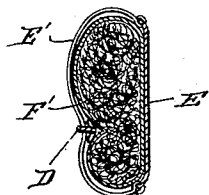


Fig. 4.

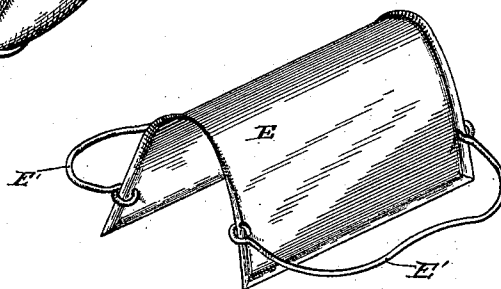


Fig. 5.

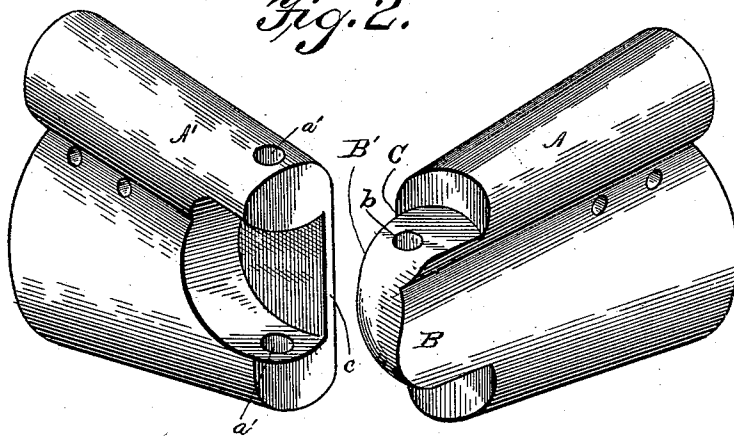


Fig. 2.

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