

(No Model.)

F. P. DAY.

CAR SIGNAL.

No. 312,099.

Patented Feb. 10, 1885.

Fig. 1.

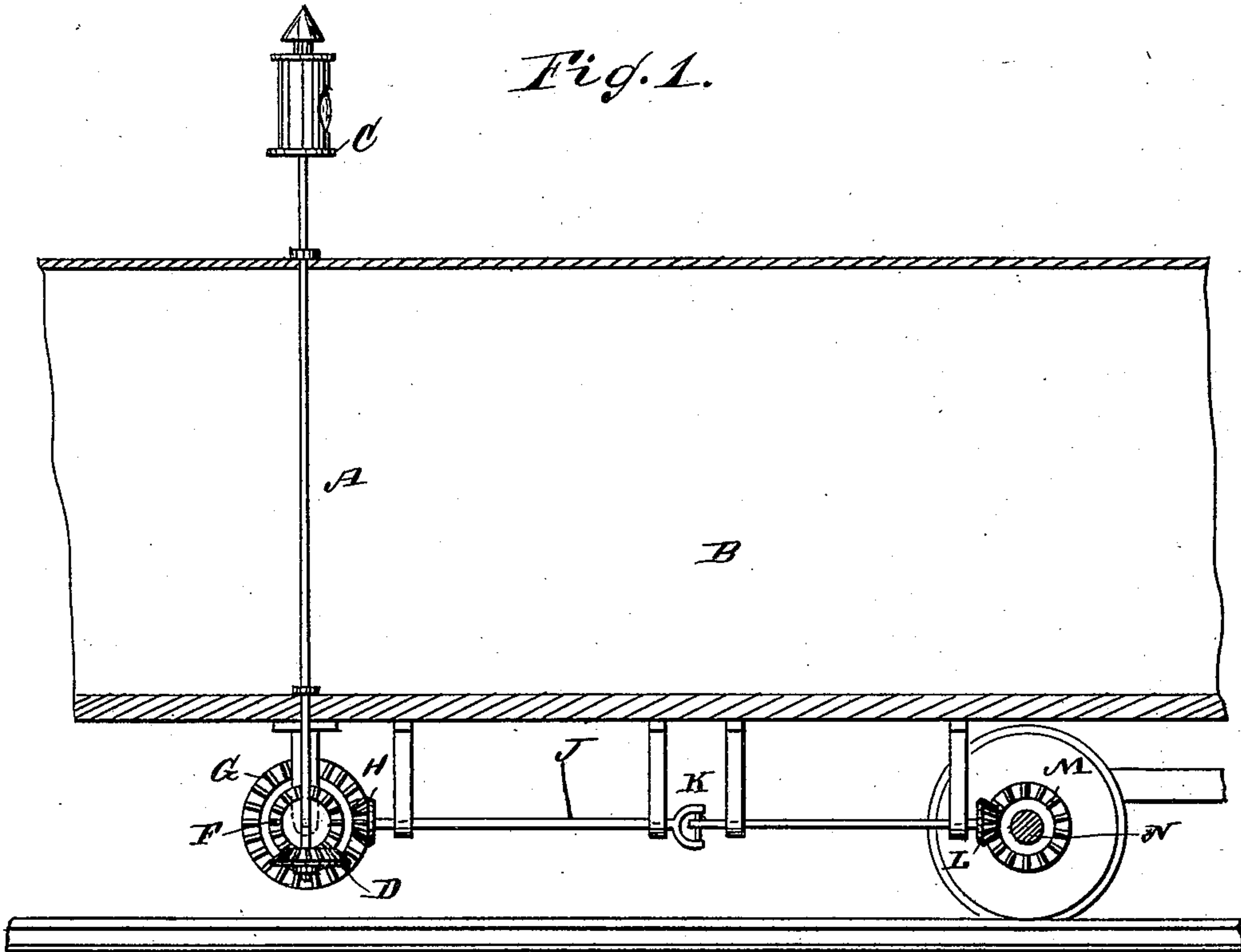
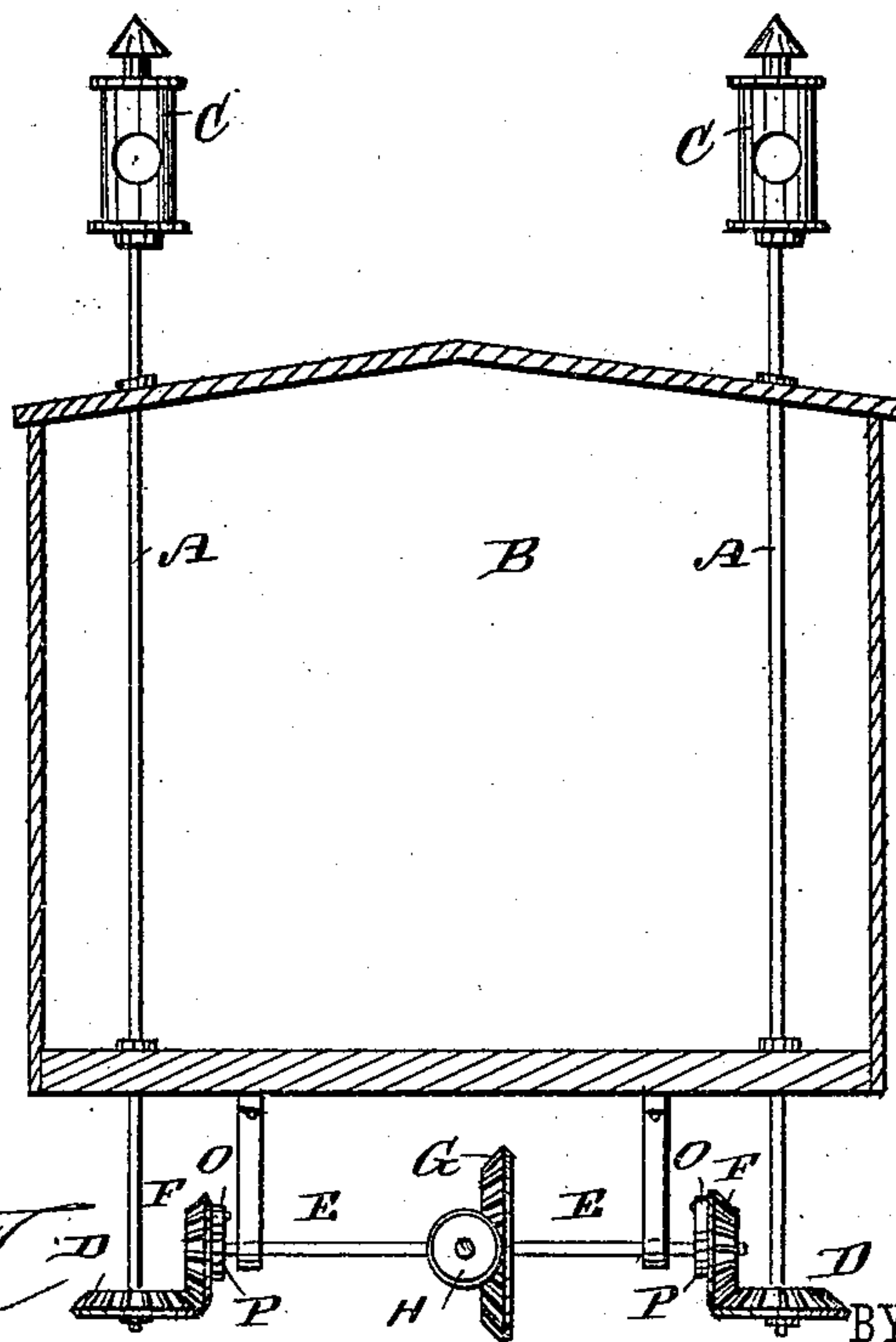


Fig. 2.



WITNESSES:

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FLORANCE PERDUE DAY, OF OMAHA, NEBRASKA, ASSIGNOR TO HIMSELF
AND THOMAS M. VAN COURT, OF SAME PLACE.

CAR-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 312,099, dated February 10, 1885.

Application filed May 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, FLORANCE P. DAY, of Omaha, Douglas county, and State of Nebraska, have invented a new and Improved
5 Speed and Direction Indicator for Railway-Trains, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved device for indicating the
10 speed of a train and the direction in which the train moves by flashes of light.

The invention consists in the combination, with a car, of a vertical shaft held at each side of the same, which shafts carry on their
15 upper ends devices for producing flashes of light, and of which shafts one is revolved when the car runs in one direction and the other when the car runs in the inverse direction, the said shafts being revolved from a
20 car-axle.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both figures.

25 Figure 1 is a longitudinal sectional elevation of a car provided with my improved speed and direction indicator, parts being broken out; and Fig. 2 is a cross-sectional elevation of the same.

30 A vertical shaft, A, is journaled in each side of the car B, the said shaft projecting from the roof and bottom of the car. A lantern, C, is secured on the top of each shaft, and a bevel cog-wheel, D, is mounted on the
35 lower end of each shaft, the bevel cog-wheels D engaging with bevel cog-wheels F on the ends of a transverse shaft, E, journaled below the bottom of the car.

On the shaft E a bevel cog-wheel, G, is
40 mounted, which engages with a bevel cog-wheel, H, on one end of a longitudinal shaft, J, journaled below the bottom of the car, and provided at or near its middle with a universal joint, K. On the opposite end of the shaft a
45 bevel cog-wheel, L, is mounted, which engages with a bevel cog-wheel, M, on one of the car-axes, N. The universal joint is provided for the purpose, permitting of the play

of the car on the springs. The cog-wheels F are loosely mounted on the ends of the shaft
50 E, and are provided on the inner surface with pivoted pawls O, which rest on and engage with reversely - arranged ratchet-wheels P, mounted rigidly on the shaft E, near the ends. The shaft E is thus revolved from the car-
55 axle, and if the car or train moves in one direction one shaft A is revolved, and if the train moves in the inverse direction the other shaft is revolved, both by the shaft E. Only one shaft is revolved at a time, the ratchet-
60 wheels and pawls being arranged accordingly.

In place of the ratchet-wheels and pawls any other suitable clutching device may be used.

The lanterns C have a single-glass light in
65 one side, and if the lanterns are revolved they will produce flashes of light, thus showing that the train is in motion. The rapidity with which the flashes follow each other shows the
70 speed of the train, and the side of the train or track on which the flashes are produced indicate the direction of the train.

In place of revolving the light, the same can be held stationary, and a slotted hood surrounding it can be revolved; or a screen can
75 be reciprocated or rocked in front of the lantern; or any other means may be provided for producing flashes of light on the car in the manner and for the purpose set forth.

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

1. In a car-signal, the upright shafts carrying the light-flashing devices and driven by the car-axle through intermediate shafts, one carrying loose pinions or wheels geared
85 to said upright shafts, and provided with means to permit their reverse engagement with and disengagement from one of said intermediate shafts, said intermediate shafts being geared together and to the car-axle, sub-
90 stantially as and for the purpose set forth.

2. In a car-signal, the upright shafts carrying light-flashing contrivances and driven by the car-axle through intermediate shafts, one carrying loose pinions or wheels geared to
95 said upright shafts, and provided with reverse-

ly-acting pawls engaging ratchet-wheels fixed to said intermediate shafts, said intermediate shafts being geared together and to the car-axle, substantially as and for the purpose set forth.

3. The combination, with a car, of the vertical shafts A, the shaft E, gearing for operating the shafts A from the shaft E, the shaft

J, having a universal joint, K, and cog-wheels H L, and the bevel cog-wheel M on one car-axle, substantially as herein shown and described.

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Witnesses:

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