(No Model.)

A. MONTANT.

SIGNAL FOR RAILROADS.

No. 260,495. Patented July 4, 1882.

Fig. 1.

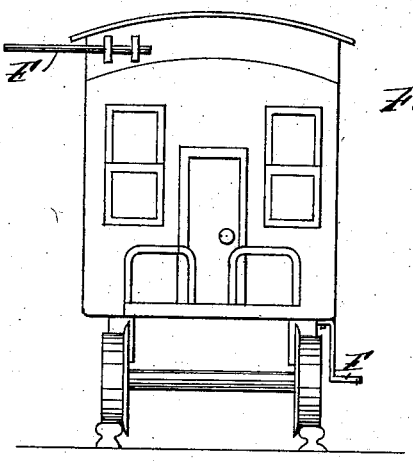


Fig. 5.

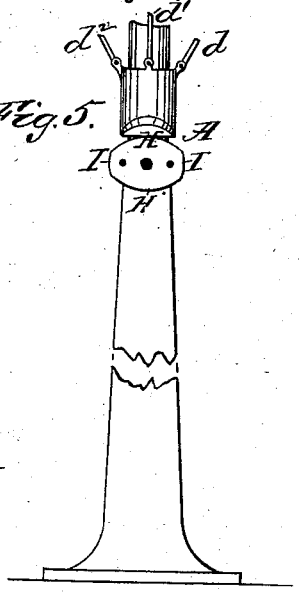


Fig. 2.

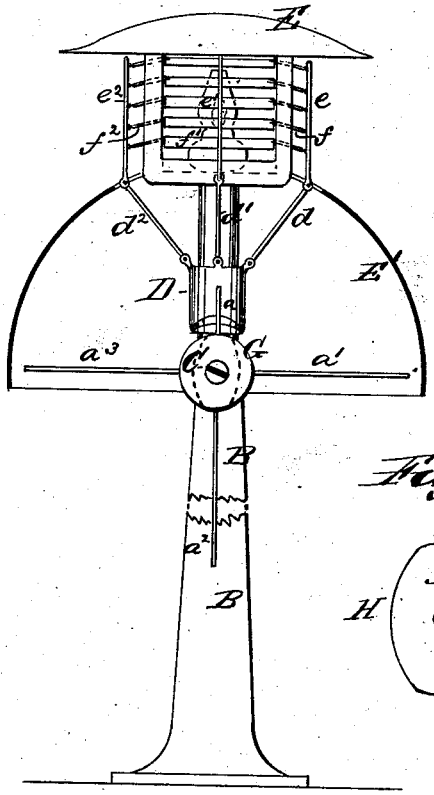


Fig. 3.

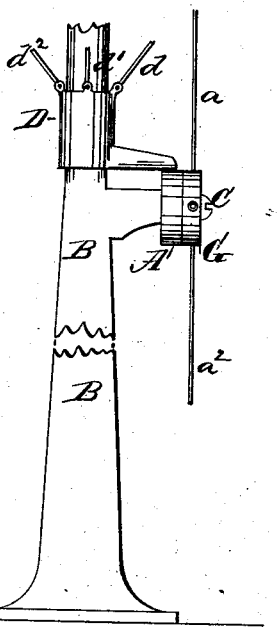
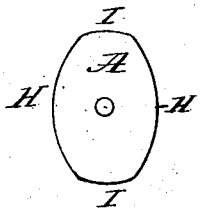


Fig. 4.



WITNESSES:

W. L. Bennett

Stephen A. Powell

Alphonse Montant

INVENTOR:

UNITED STATES PATENT OFFICE.

ALPHONSE MONTANT, OF NEW YORK, N. Y.

SIGNAL FOR RAILROADS.

SPECIFICATION forming part of Letters Patent No. 260,495, dated July 4, 1882.

Application filed August 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, ALPHONSE MONTANT, of the city, county, and State of New York, have invented new and useful Improvements in Signals for Railroads; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to provide an automatic signal for railroads, that is simple of construction, and is not worked by the wheels of passing cars, and is protected from the weather, (as any device that is worked by the wheels of a passing train of cars is subjected to a great deal of trouble from ice, sleet, and dirt, &c.,) and that can do the work required to be done by switch-tenders.

To this end my invention consists of an arm projecting from the body of a car or locomotive, either on the upper part or lower part of the car, in combination with an arm or branch projecting from a fixed frame placed at the side of the track, and movable slats which open and close the light to view, as will be hereinafter more fully described.

In order that the invention may be fully understood, I have represented in the accompanying drawings the best form in which I have at this date constructed signals for railroads embodying my invention.

Figure 1 represents a front elevation of a car with an arm or branch in place. Fig. 2 represents a front view of my railroad-signal, partly in section, with cam shown in dotted lines. Fig. 3 represents a side view of the frame, elongated cam, and arms. Fig. 4 represents an enlarged view of the cam. Fig. 5 represents the elongated cam in position for closing the light to view.

A is a cam having a long and short diameter. To the front part of this cam is attached a disk, G. Said disk has four or more arms or branches, a a' a^2 a^3, and is secured to post B by means of bolt C, and revolves freely upon said bolt.

D is a tube which fits loosely around post B. To the upper end of this tube rods d d' d^2 are fastened, and these rods are connected to another set of rods, e e' e^2, which are attached to the movable slats f f' f^2 of the lantern.

Two shields, E and E′, are secured in their proper places (as represented in Fig. 2) to protect the railroad-signal from the inclemency of the weather.

When the lower branch, a^2, of disk G is struck by the arm of a passing train it is made to assume the position of a horizontal branch, a^3, and tube D then descending on the short diameter H of the cam, closes by means of the rods, the slats of the lantern, thereby closing the light to view. The next time that a branch of the disk is struck the cam in this instance revolves a quarter of a revolution, and the long diameter I of the cam elevates the slats, and the light is seen.

Instead of a change of light from one to another color, a change of shape or a change of any kind can be accomplished by very much the same means.

By means of a wire a signal at some distance can be operated by the device that is struck by the arm of a passing train, and it is clear that if such a device is used at each end of a switch portion the switch-tender can at once detect when a train enters and leaves said portion if a branch or an arm is used at each end of a train.

Of course there are innumerable ways in which this system can be used. The device that is on the outside of the track can be arranged with the arms turning around the post instead of up and down.

For the purpose of showing the name of the station to which the train is going, the system can be reversed, and a projection on the side of the track can, by acting on a device on the inside of a car, (action being had by means of an arm from the car,) disclose to view said name of station. It can also be attached and worked in connection with a switch or the turning arrangement of a bridge.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. An arm projecting from the body of a car or locomotive, either on the upper or lower part of the car, in combination with an arm or branch projecting from a fixture placed at the side of the track, and movable slats which open and close the light to view, substantially as described.

2. A fixed frame having secured to it an

elongated cam, said cam having arms or branches which are operated by an arm projecting from a car or locomotive, substantially as hereinbefore set forth.

3. A fixed frame having at its top a lantern with movable slats which are opened and closed by rods, the rods being fastened to a tube, which tube is caused to move up and down by the elongated cam, substantially as hereinbefore set forth.

4. A fixed frame, in combination with the elongated cam, the lantern with movable slots, the rods, the tube, and shields, substantially as hereinbefore set forth.

Witness my hand this 2d day of August, A. D. 1881.

ALPHONSE MONTANT.

Witnesses:

STEPHEN A. POWELL,

W. L. BENNEM.