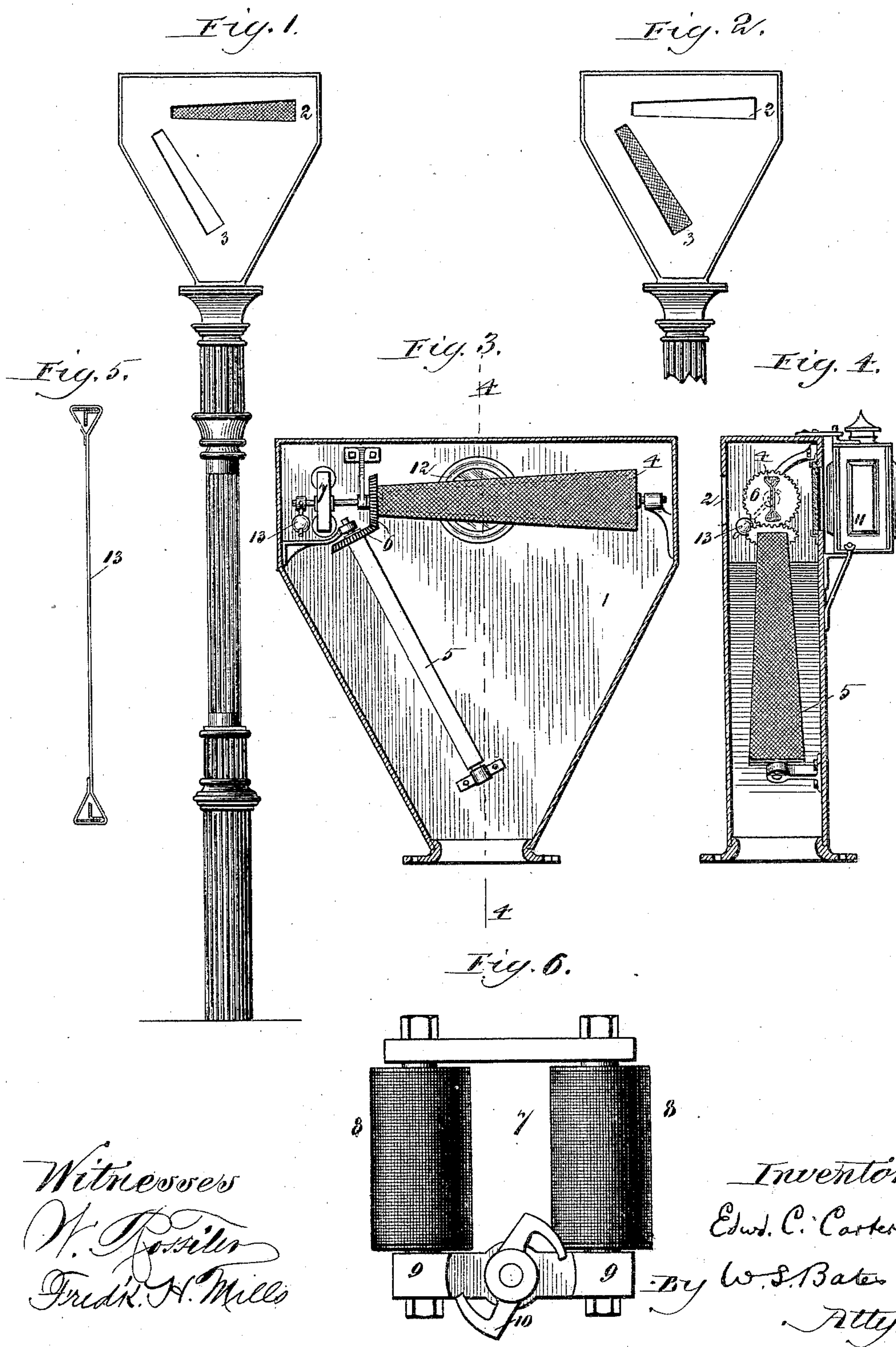


(No Model.)

E. C. CARTER.  
RAILWAY SIGNAL.

No. 448,773.

Patented Mar. 24, 1891.





# UNITED STATES PATENT OFFICE.

EDWARD C. CARTER, OF CHICAGO, ILLINOIS.

## RAILWAY-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 448,773, dated March 24, 1891.

Application filed December 2, 1890. Serial No. 373,361. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD C. CARTER, of Chicago, Illinois, have invented certain new and useful Improvements in Railway-Signals, of which the following is a specification.

My invention relates to signals which indicate their meaning by their position; and it consists, chiefly, in the use of two or more arms or signaling devices occupying different axial positions and so combined that when one is displayed to view the others are practically out of sight, either by being turned edgewise or otherwise, whereby the signal given depends upon the position of the displayed device and is independent of its specific color.

The accompanying drawings show my invention in what I consider its best form.

Figure 1 represents a post and head with the danger-signal displayed. Fig. 2 shows a head with the clear signal displayed. Fig. 3 shows the interior of the head, the front plate of the same being removed. Fig. 4 is a section on line 4 4 of Fig. 3. Fig. 5 is a cross-section of an arm enlarged. Fig. 6 shows the preferred form of operating-motor.

In the drawings, 1 is a suitable casing provided on its face with slots 2 and 3, one of which, as 2, may be horizontal and the other extend in a different direction, as, for example, obliquely downward, as shown. Back of each of these slots and within the casing I arrange a rotatable device 4 5, part of whose surface is of a color contrasting with that of the face of the casing and part of the same color, or approximately the same, when it is broad enough to show. In the form shown the devices 4 and 5 are skeleton arms covered with a translucent material, as silk. The arms 4 and 5 may be connected by gearing 6 or otherwise, so that the rotation of one will effect that of the other. 7 is an electric motor composed of magnets 8, between whose poles 9 is mounted a revolving armature 10. The armature 10 is connected with the axis of one of the arms, as 4, so as to turn the same.

In operation, the motor being started turns the arms 4 and 5, so that the contrasting color of one shows through the slot in the face of the casing, while the other shows the same color as the face, thus giving the effect of a

single arm projecting in the position of said slot, through which the contrasting color is seen, and giving a signal to an approaching train. A reverse motion of the motor or a further movement in the same direction gives the reverse signal by bringing the contrasting color of the second arm opposite its slot in the face and withdrawing that of the first one.

For use at night I arrange a light 11 behind an opening 12 in the casing, so that its light shines through the same and through the silk 13 of the arm. If desired, lights may be placed behind each arm; but as their arrangement would be the same, I have thought it sufficient to show but one.

13 is an adjustable counter-weight so arranged, as shown, that it will automatically exhibit the danger-signal by bringing the devices to the position shown in Figs. 1, 3, and 4, so that if the motor fails to operate, the danger-signal will be displayed and accident averted.

It is obvious that many modifications may be made in the apparatus shown and the invention may be embodied in many different forms without departing from its spirit. I have therefore shown only that which I consider the best, leaving others to the option of the mechanic constructing the invention.

I claim—

1. A railway-signal comprising two or more signaling devices or arms permanently occupying different axial positions and adapted to be exposed to view and concealed, thereby giving an indication by the position of the exposed device, substantially as set forth.

2. A railway-signal comprising two or more signaling devices or arms permanently occupying different axial positions and rotatable on longitudinal axes and adapted by said rotation to be exposed to view or concealed, substantially as set forth.

3. The combination, substantially as set forth, of a casing provided with slots occupying different angular positions in its face with movable arms opposite each slot adapted by their movement to render the slots visible or invisible, thereby giving an indication by the position of the visible slot.

4. The combination, substantially as set forth, of the casing provided with slots, as 2 3, occupying different positions in its face, with the rotatable arms, as 4 5, behind said 5 slots, and an electric motor, as 7, to rotate said arms.

5. In a railway-signal, two or more arms or signaling devices permanently occupying different axial positions and adapted to be exposed and concealed, in combination with a

counter-weight to normally exhibit the danger-signal, substantially as set forth.

6. The combination, substantially as set forth, of the light with a signaling-arm in front of it adapted to be turned edgewise or 15 flatwise to the light to vary the signal given.

EDWARD C. CARTER.

Witnesses:

WM. S. BATES,  
L. M. FRENCH.