

No. 871,587.

PATENTED NOV. 19, 1907.

G. S. HENNINGER.
STREET CAR SIGNAL.
APPLICATION FILED APR. 4, 1907.

Fig - 1 -

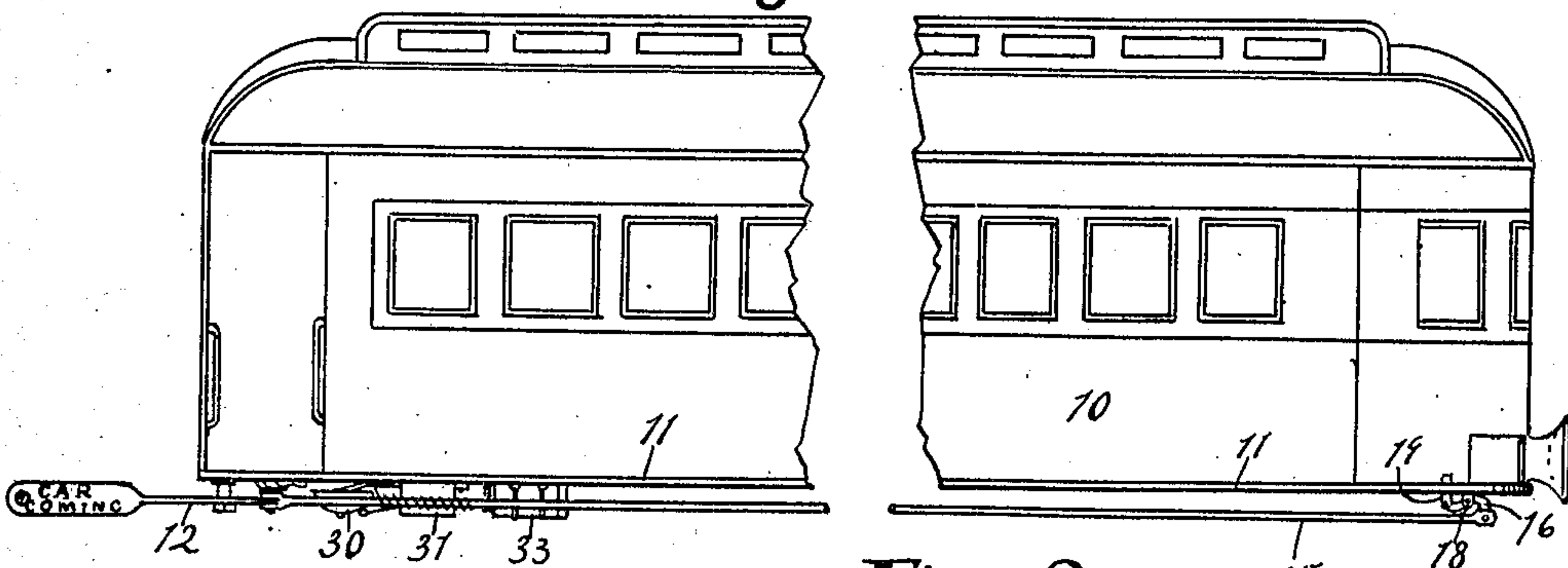


Fig - 2 -

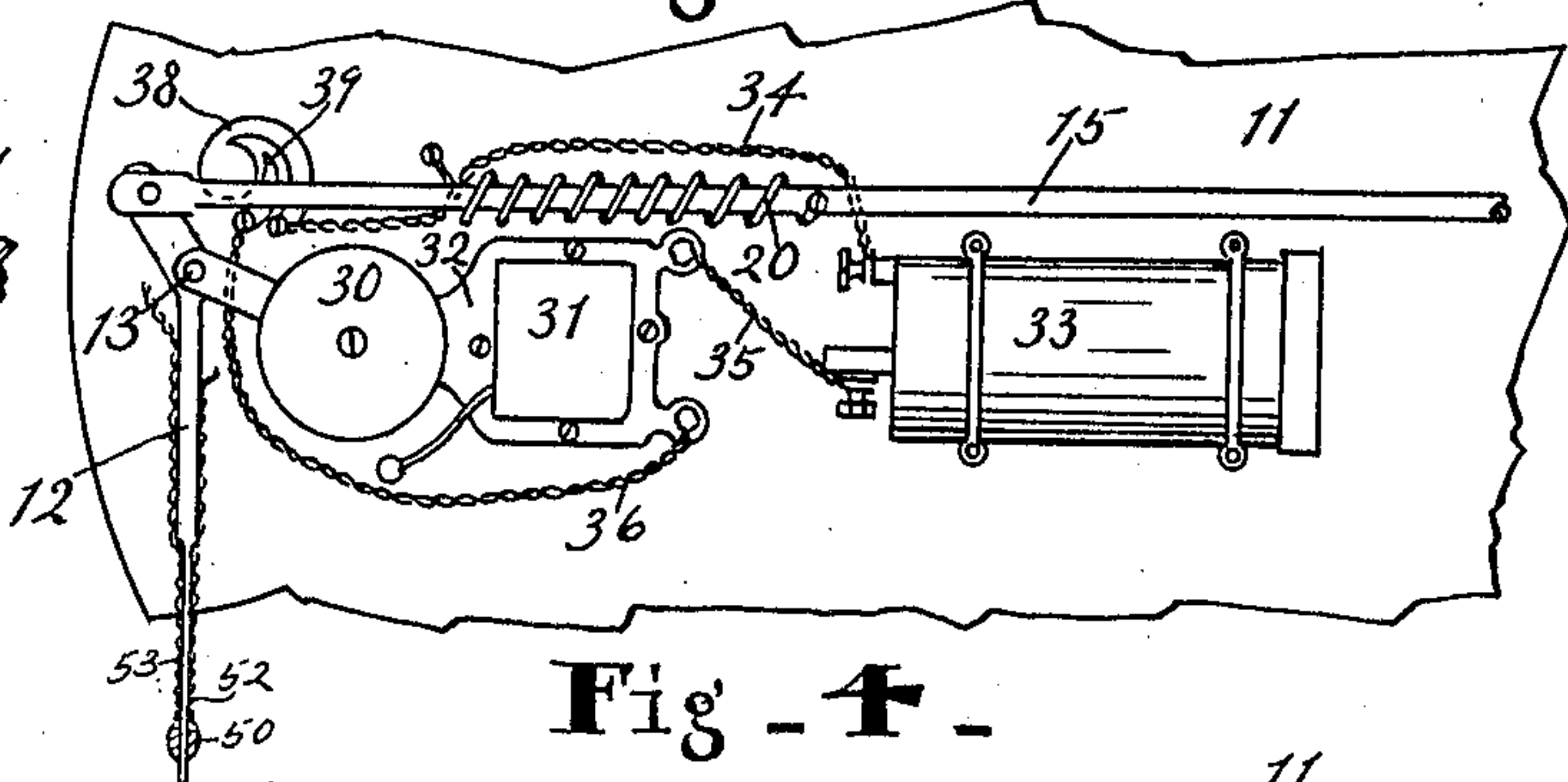
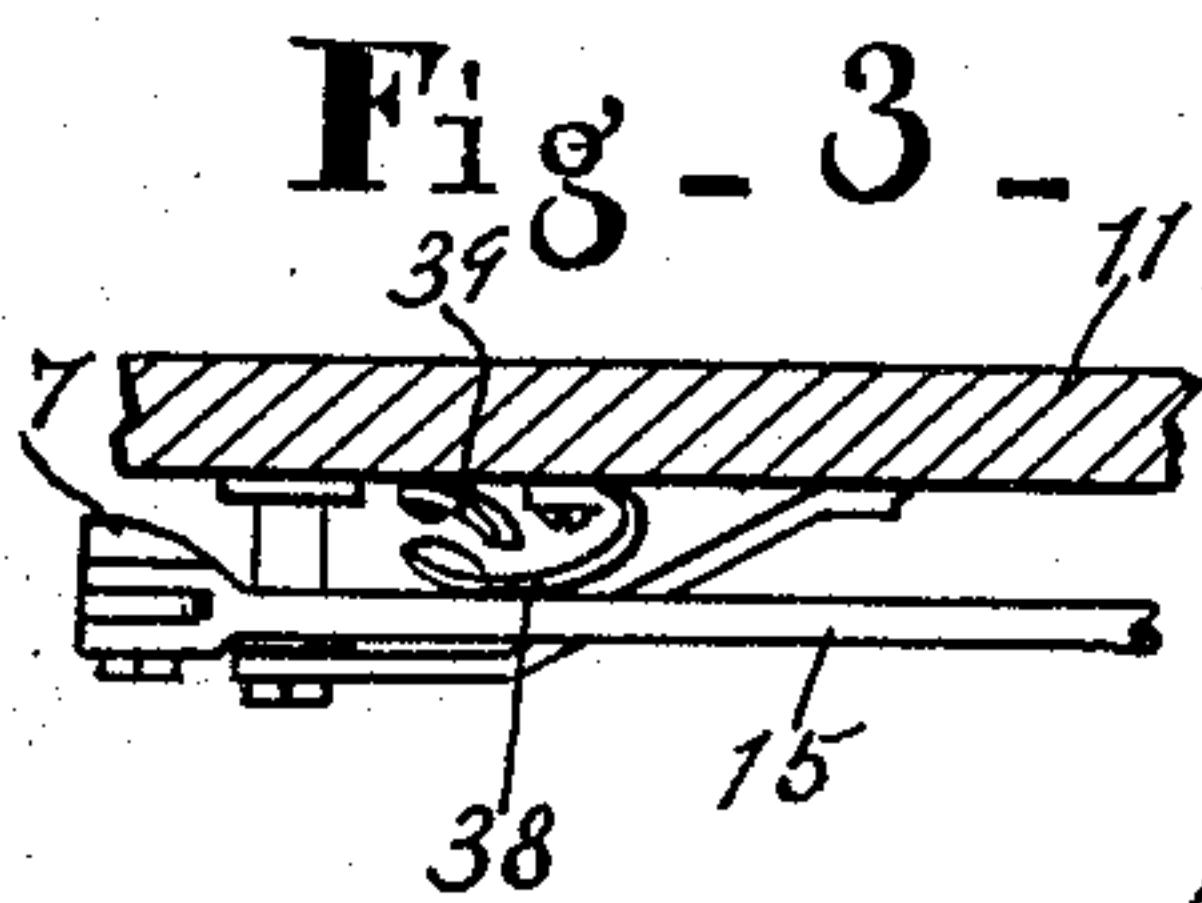


Fig - 4 -

Fig - 5 -

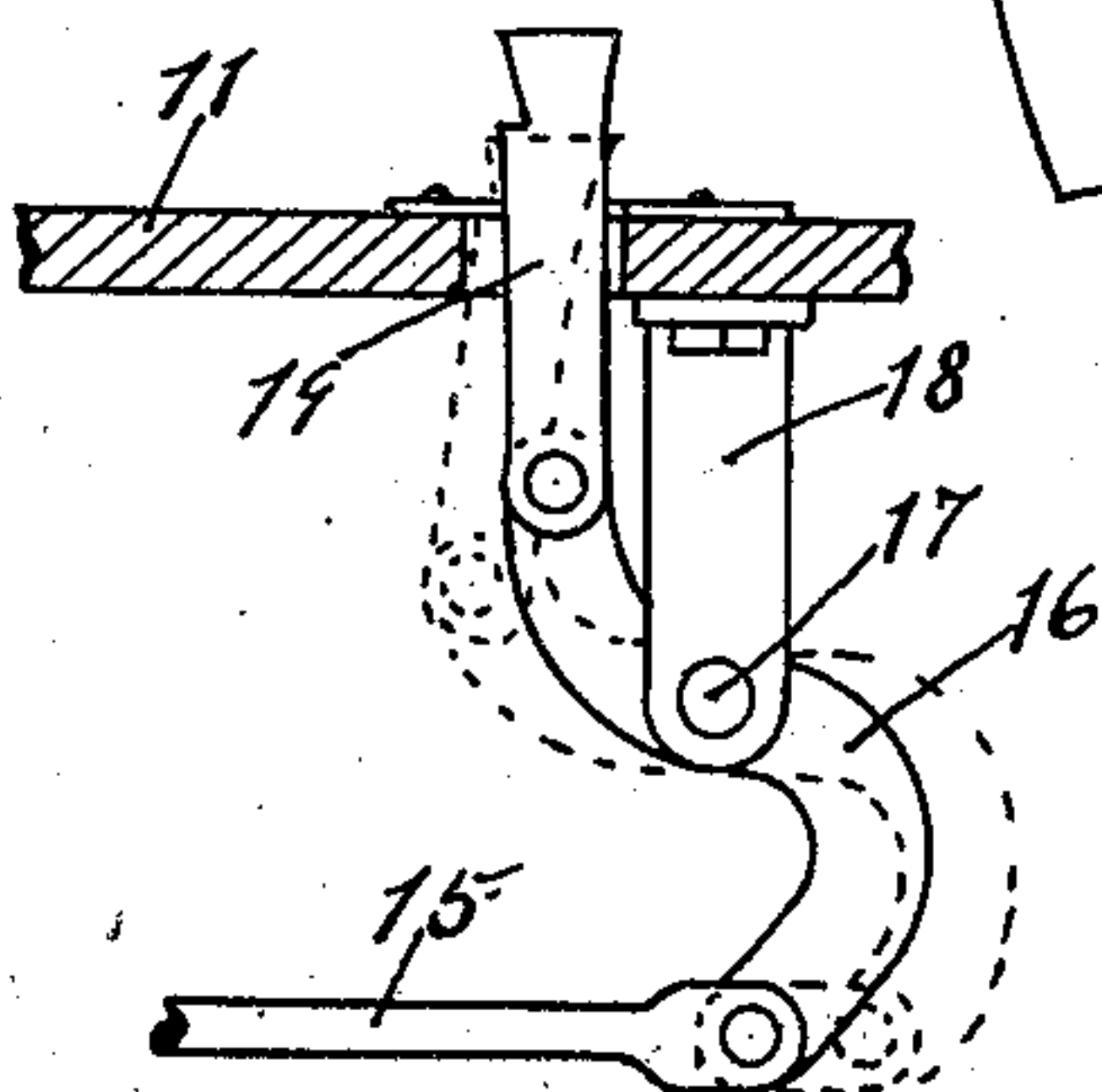
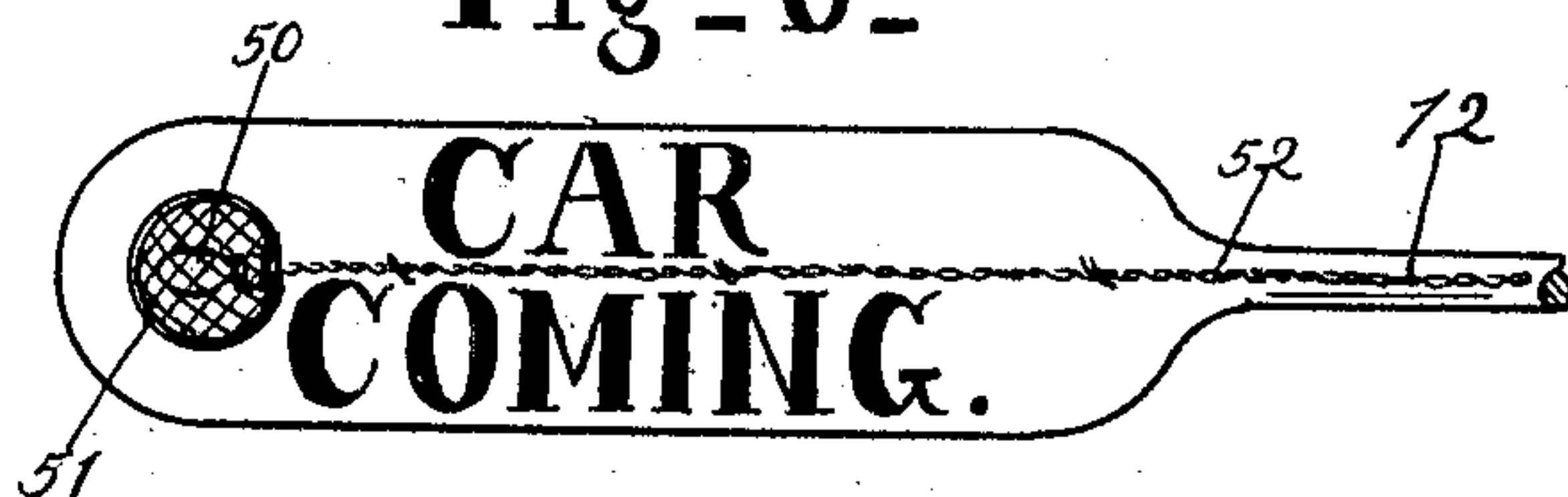


Fig - 6 -



WITNESSES:

W. M. Gentle.
N. Allemong.

INVENTOR.

George S. Henninger.

BY

W. Lockwood

ATTORNEY.

UNITED STATES PATENT OFFICE.

GEORGE S. HENNINGER, OF LINTON, INDIANA.

STREET-CAR SIGNAL.

No. 871,587.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed April 4, 1907. Serial No. 366,365.

To all whom it may concern:

Be it known that I, GEORGE S. HENNINGER, of Linton, county of Greene, and State of Indiana, have invented a certain new and useful Street-Car Signal; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

10 The object of this invention is to provide a conveniently mounted and operated signal at the rear end of a street car or the like and preferably operable by the motorman at the front of the car to indicate to persons cross-
15 ing the track behind the car that another car is coming from an opposite direction on a parallel track, so as to prevent the person from running into or being run down by the last mentioned car. Accidental injuries to
20 persons are quite common where the individual is crossing a track in the rear of a car and does not see or hear a car coming on a parallel track in the opposite direction until he gets on the second track and it is too late
25 to escape the second car.

One feature of this invention consists in providing means normally out of the way under the rear platform of the car that can be thrown outward to the rear and beyond
30 the rear platform of the car by the motorman or conductor of the car and thus project across the path of persons crossing in the rear of the car. This and the other features of my invention will be understood from the
35 accompanying drawings and the following description and claims.

In the drawings, Figure 1 is a side elevation of a street car centrally broken away with the signal operated and the signal bar
40 projecting to the rear. Fig. 2 is a bottom view of a portion of the rear part of the car with the signal mechanism in place and in normal and unoperated condition, parts being broken away. Fig. 3 is a central vertical
45 section through a portion of the floor at the rear of the car and an actuating rod showing the electric switch for operating the bell signal, parts being broken away. Fig. 4 is
50 the same as Fig. 2 with the parts in their operated position. Fig. 5 is a vertical section through the front platform of the car showing the means actuated by the motorman for setting the signals in operation, parts being broken away. Fig. 6 is an elevation of

the extreme end of the signal arm showing 55 the danger sign thereon.

In detail the invention is combined with a car 10 having a suitable floor 11 the forward end of which constitutes the front platform and the rear end of which constitutes 60 the rear platform. Under the rear platform a signal arm 12 is fulcrumed on a bolt 13 at a point that will enable said signal arm to project considerably to the rear of the car when it is operated, as seen in Figs. 1 and 4. The 65 extreme end of said signal arm is widened and vertical and contains the words "Car coming" or similar words. The signal arm 12 is pivoted between its ends, the actuating end extending at an obtuse angle from the 70 fulcrum and having pivoted to it a hand-actuating rod 15 that runs to the front of the car and there it is pivoted to the S-shaped lever 16 which is fulcrumed on the pin 17 in the lower end of the bracket 18 depending from 75 the front platform. A pedal 19 is pivoted at its lower end to said lever 16 and projects up into an opening in the front platform in position for the motorman's foot.

When the pedal 19 is depressed by the 80 motorman's foot the rod 15 will be moved from the position shown in Fig. 2 to the position shown in Figs. 1 and 4 and that will cause the signal arm 12 to be thrown out beyond the rear of the car in the path of a per- 85 son crossing behind the car. A spiral spring 20 returns the rod 15 and the other parts associated therewith to their unoperated position.

The foregoing relates chiefly to what may be 90 termed the sight signal. In connection with it I also provide a sound signal. Under the rear part of the car I secure a bell 30 with striking apparatus 31 mounted on a frame 32 secured to the floor of the car. This is an electric bell 95 and is operated from the battery 33 through conductors 34, 35 and 36. A switch for closing the circuit which includes the battery and bell is shown in Fig. 3 and is operated by the rod 15. That rod has an enlargement at 37 100 which, when the rod is moved forwardly engages a spring 38 secured to the bottom 11 of the car and moves its contact point into touch with the contact point 39. The wire 34 is connected with the part 38 and the wire 105 36 is connected with the part 39 of the switch.

From the foregoing it is seen that I have effective sight and sound signals operated by

a single means, the rod 15, and that is operated by the motorman at the front end of the car, so that while his car is standing, if he sees an approaching car about to pass, he can operate these signals.

To enable persons after night to see the signal bar when it extends out from the rear of the car, I provide a light on it, an incandescent lamp 50, which is mounted in a hole 51 cut in the signal arm 12 and being connected with two electrical conductors 52 and 53, which extend to the general lighting system of the car, so that the light will continue to shine as long as the car is lighted.

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

1. The combination with a car, of a signal arm pivoted under the car, a spring for holding it normally under the car, and means for actuating it so as to cause it to extend rearwardly from the car.

2. The combination with a car, of a signal arm mounted under the car and adapted when operated to extend rearwardly from the car, a rod pivoted to it extending to the front of the car for operating said switch, mechanism adapted to be operated by the motorman at the front end of the car for actuating said rod, and a spring for returning the parts to their unoperated position.

3. The combination with a car, of a signal

arm mounted under the end of the car and adapted to extend rearwardly from the car when operated, a rod for actuating said arm that extends to the front end of the car, means at the front end of the car to enable the motorman to operate said rod, an electric bell mounted under the rear end of the car, and a switch for controlling said bell that is closed by the actuating movement of said rod, whereby the bell will ring when the signal arm extends rearwardly.

4. The combination with a car, of a signal arm mounted under the end of the car and adapted to extend rearwardly from the car when operated, a rod for actuating said arm that extends to the front end of the car, means at the front end of the car to enable the motorman to operate said rod, an electric lamp mounted on said signal arm, and a switch for controlling said lamp that is closed by the actuating movement of said rod, whereby the lamp will shine when the signal arm extends rearwardly.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

GEORGE S. HENNINGER.

Witnesses:

ERNEST K. CASWELL,
DAVID D. TERHUNE