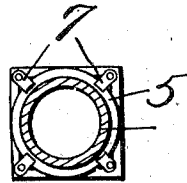
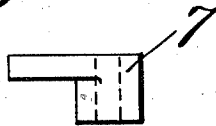
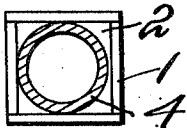
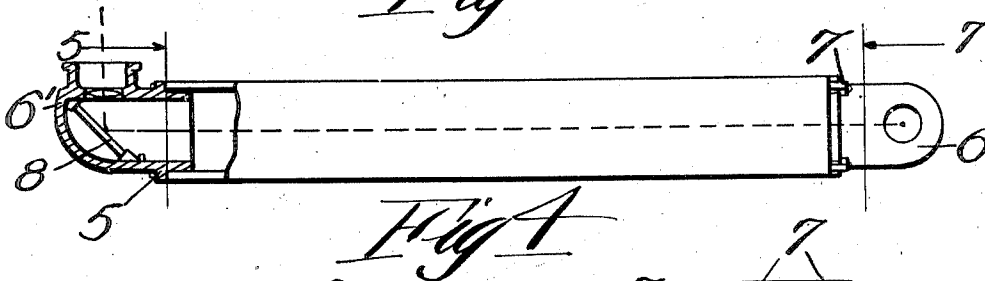
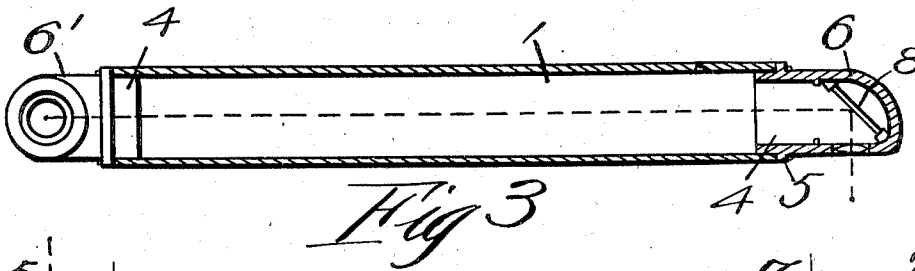
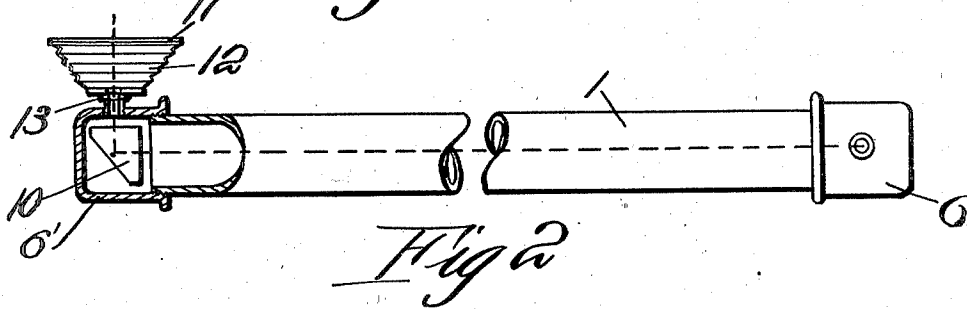
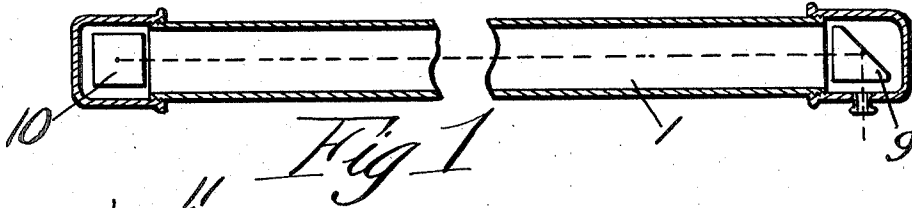


C. E. CRANE.
CAR VIEW BOX.
APPLICATION FILED SEPT. 25, 1907.

951,755.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.



Witnesses:
Chas Meyer
H. Talbot.

Inventor:
Charles Eugene Crane
By *Wm Talbot*
His Attorney.

951,755.

Patented Mar. 8, 1910.
2 SHEETS—SHEET 2.

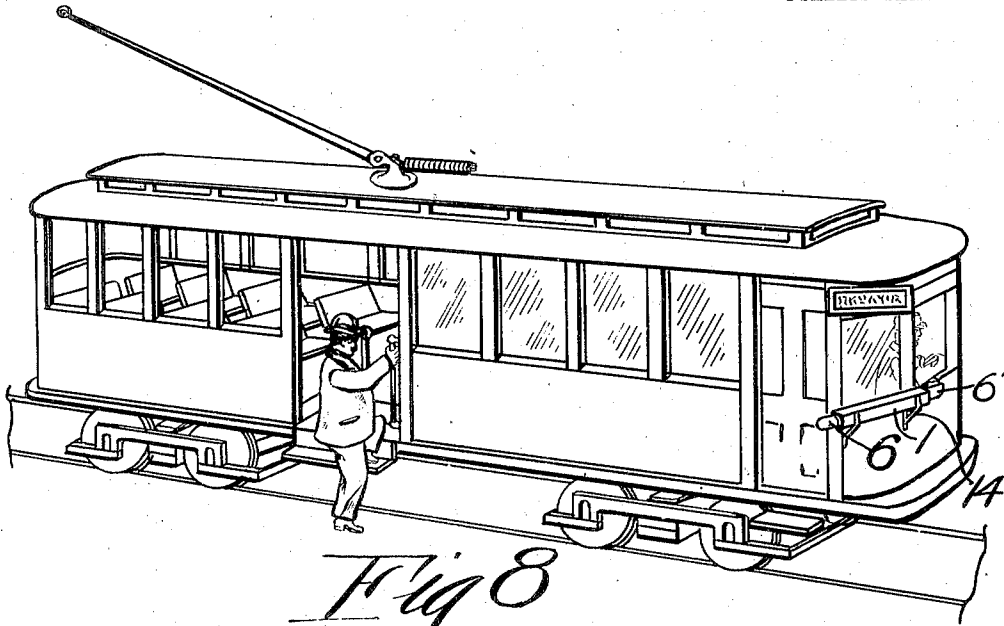


Fig 8

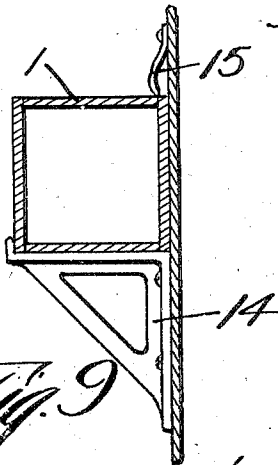


Fig 9

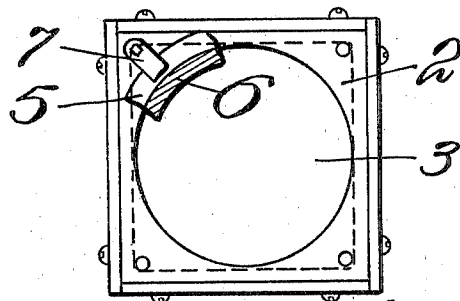


Fig 10

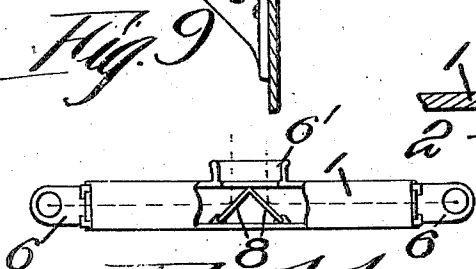


Fig 11

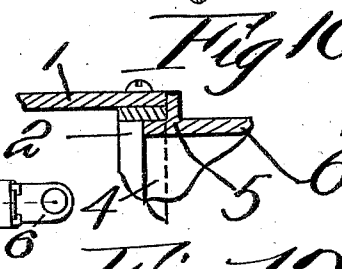


Fig 12



Fig 13

Witnesses
Chas Meyer
H. Talbot.

Inventor
Charles Eugene Crane
By *H. Talbot*
His Attorney.

UNITED STATES PATENT OFFICE.

CHARLES EUGENE CRANE, OF SEATTLE, WASHINGTON.

CAR VIEW-BOX.

951,755.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed September 25, 1907. Serial No. 394,593.

To all whom it may concern:

Be it known that I, CHARLES EUGENE CRANE, a citizen of the United States, whose post-office address is 420 Alaska Building, in the city of Seattle, county of King, and State of Washington, have invented a new and useful Car View-Box, of which the following is a clear and concise specification.

My invention relates primarily to a device for use on street cars which will enable the motorman to see passengers getting off and on the rear platform of the car.

The objects of my invention are to provide a portable detecting device by which the motorman may see the rear end of the car which he is running; to afford an expeditious means for detaching and attaching the device illustrated in the accompanying drawings and hereinafter more fully set forth, to the street car; to afford a means by which the several mirrors may be adjusted to reveal the passengers dismounting and mounting the rear platform which will be seen directly in front of the motorman. I accomplish these as well as minor objects by the construction now preferred by me and illustrated in the accompanying drawings in which—

Figure 1 is a plan view of the modification of my device, Fig. 2 is a side elevation of the modification of my device, Fig. 3 is a horizontal section of the preferred construction of my device, Fig. 4 is a side elevation of Fig. 3, Fig. 5 is a section at 5, Fig. 6 is an elevation of one of the clamp pieces, Fig. 7 is a section at 7, Fig. 8 is a perspective view of the car showing the application of my device, Fig. 9 is a transverse section of my device showing the bracket, Fig. 10 is an elevation of the end piece, Fig. 11 is an elevation showing my device as constructed to reveal the rear portion of both sides of the car, and Fig. 12 is a fragmentary section of one of the end pieces and adjusting plates. Fig. 13 is a front view of the street car showing my device located directly in front of and above the motorman.

Similar reference numerals refer to similar parts throughout the several views of my device as illustrated in the accompanying drawings.

I have provided a frame work or box 1 having end pieces 2 secured thereto which are preferably provided with a circular opening 3 adapted to receive the projecting

portion 4 of the adjusting plates 5 which are secured to the head pieces 6, thus permitting said head 6 to be revolved relative to said box 1 to which it is preferably secured by said plates 5 and clamp pieces 7. Said head pieces 6 are provided with a mirror 8 disposed substantially at 45 degrees from the axis of rotation of said head pieces, thus one of said head pieces, which may be termed the receiving head, will be disposed to reflect the image of the passenger mounting or dismounting from the rear platform of the car to which it is attached, and upon the opposite or transmitting head 6' which is directly in front of the motorman.

I do not wish to be limited to the mirrors as a means of revealing the rear of the car as above described and in Figs. 1 and 2 I have shown a prism 9 provided in said head 6 and a prism 10 in said transmitting head 6'. It may also be desired to use ground glass 11 to receive the image from said prism 10. Said ground glass 11 may be focused by the bellows 12 which are also adapted to prevent light from entering and destroying the image on said ground glass 11. It may also be desired to provide a lens 13 to increase the angle or vision from said prism 10. My device may be also constructed to reveal each side of the car to which it is attached, and in Figs. 11 and 13 I have shown a double box 1 provided with head pieces at either end and a double transmitting head 6' at the center thereof. To secure my device to the car I have provided brackets 14 secured to the front of the car which is also provided with the retaining spring 15 which may be depressed to permit the removal of said box 1.

The motorman of a street car often starts the car very slowly to prevent accidents which might easily be avoided if it were possible for him to see passengers mounting and dismounting from the car, and by the construction now preferred by me, it may be possible for the motorman to assist the conductor while collecting fares in starting the car promptly after the passenger is aboard and without having his attention taken from the track in front of the car which he is running.

I do not wish to be limited to this specific construction, however, but wish to depart from such details as are within the scope of my patent.

In Fig. 13 I have shown the mirrors facing the rear of the car and projecting beyond each side of the car so that both sides are visible to the motorman. By adjusting the mirrors in front of the motorman relative to those at the side of the car, a clear image is made possible.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a car view device, a box, a head secured to one end thereof projecting beyond the side of the car, a transmitting head secured to the opposite end thereof directly in front of the motorman, mirrors provided in said heads, means whereby said heads may be adjusted to permit the motorman to see passengers mounting and dismounting from

the rear platform of the car without losing sight of the track ahead.

2. In a car view device, a box, mirrors, a head adjustably secured to said box and supporting one of said mirrors, a transmitting head adjustably secured to the opposite end of said box and supporting the other of said mirrors and disposed in front of the motorman whereby the track ahead as well as the side of rear platform may be seen simultaneously.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES EUGENE CRANE.

Witnesses:

PAUL A. TALBOT,
H. TALBOT.