(No Model.)

J. R. GATHRIGHT.

SIDE BAR FOR OPEN CARS.

No. 552,996. Patented Jan. 14, 1896.

Fig I

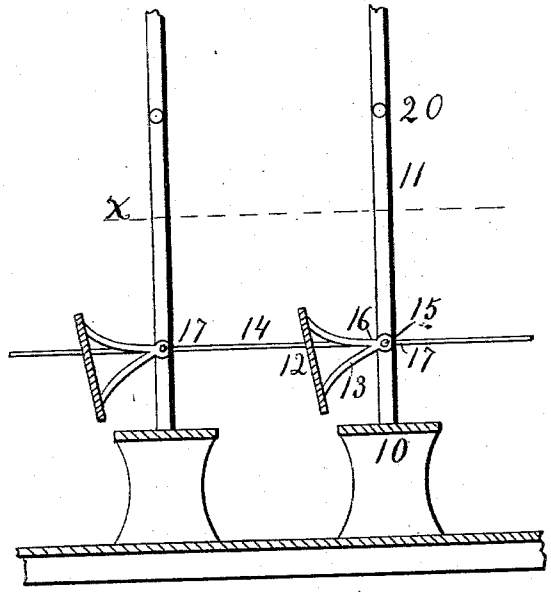


Fig II

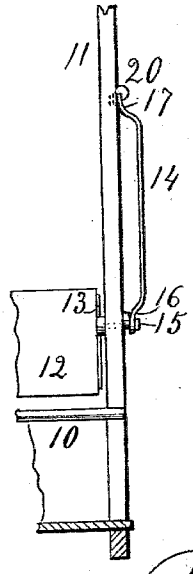


Fig III.

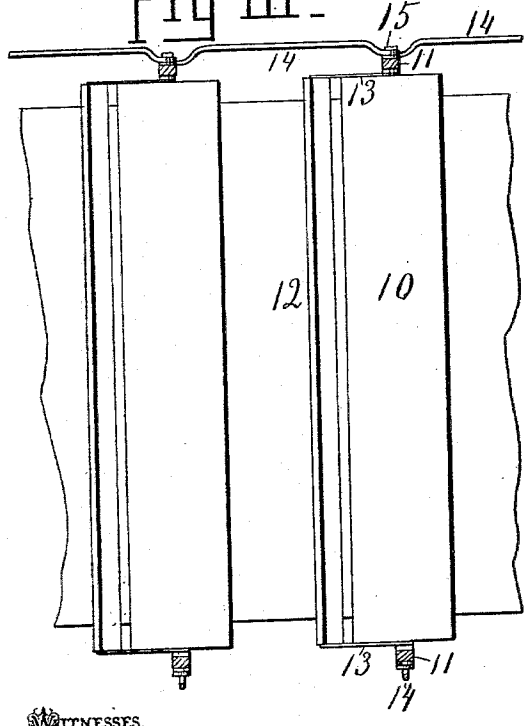


Fig IV.

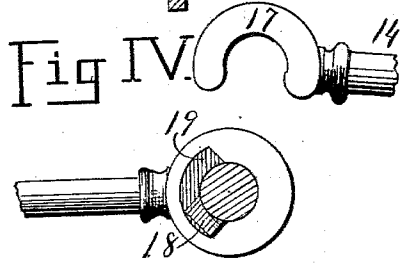
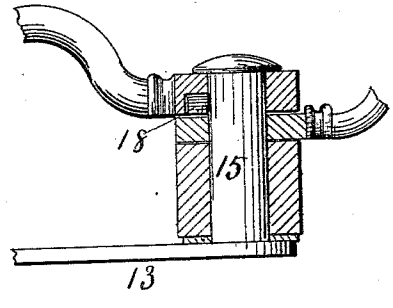


Fig V.



WITNESSES.

P. Egbert Stevens.

Arthur L. Bryant

INVENTOR.

John R. Gathright.

by W. X. Stevens. ATTY.

UNITED STATES PATENT OFFICE.

JOHN R. GATHRIGHT, OF LOUISVILLE, KENTUCKY.

SIDE BAR FOR OPEN CARS.

SPECIFICATION forming part of Letters Patent No. 552,996, dated January 14, 1896.

Application filed September 16, 1895. Serial No. 562,731. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. GATHRIGHT, a citizen of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Side Bars for Open Cars; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure I represents a portion of an open street-car looking on the inner left side and showing one form of my side bar. Fig. II is a rear view of a right-hand side post and a portion of the seat and back. Fig. III is a top view looking upon the posts below line *x*, Fig. I. Fig. IV is an inner side view of a joint at the bearing of a side bar, showing portions of two side bars on an enlarged scale according to my invention. Fig. V is a top view of the same joint with both bars down for service as side bars or guards.

This invention relates to side bars for open cars where double tracks render it dangerous to get on or off at the side next to the other track, which is usually the left-hand side of the car, because cars usually travel on the right-hand track, the use of the bars in question being to prevent careless people from risking the said danger, and the object of this invention is to provide movable side bars that may be removed by reversing the seat-backs at the ends of the line.

To this end the invention consists in side bars for open cars constructed and arranged as hereinafter described and claimed.

In the accompanying drawings, 10 represents a car-seat, 11 a side post, and 12 the back of a seat hung upon a pivot 15 in the post by means of an arm 13, to be inverted when the direction of the car is reversed at the end of the line. 14 represents one of my side bars preferably pivoted on the said pivot-pin 15 of the seat-back. There may be one of these bars to each seat so arranged as to be inverted with the seat-back, or the seat-back and bar may be arranged to be inverted independently of each other, according to the further objects to be accomplished by the bar.

In the preferred form one end 16 of each bar 14 is journaled to revolve for about a quarter of a circle upon the pin 15, and the other end 17 is adapted to fall in behind the end 16 of the next bar to the rear, as shown in Figs. IV and V. In the present case the pivot-pin 15 is a rigid fixture to the seat-arm 13, and is provided with a projecting lug 18 to engage either end of a slot or recess 19 in the end 16 of each bar 14. This recess extends about a quarter of a circle around the pin 15, so that the act of reversing a seat will, after it has moved a quarter of a circle, engage its lug 18 with an end of the recess 19 and lift the bar 14, and by the time the seat-back is completely reversed the bar will be raised to a vertical position beside a post 11, on which a spring-catch 20 may be located to receive the upper end of the raised bar, so that in this position the parts 14 may serve as handles either for passengers or for the conductor's use. When the seat-back is turned back again it will return the bar to its horizontal position. The segmental slots 19 of the arms at the opposite ends of any one seat will be arranged to act oppositely to each other, so that if a seat-back be turned over one way it will raise one bar and turn the other down. At the end of the route a car will be switched onto the other track. Then the seat-backs being inverted to face forward will raise all the bars on the right-hand side out of the passways and set them in vertical positions to serve as handles, and will turn down all the bars on the left-hand side of the car to stop the passways on what now becomes the dangerous side. As the bar is acted upon by the seat-arm in the latter quarter of its half-circle of movement the bar will be rigidly held either in its vertical or horizontal position by the seat-arm.

As there are various known mechanical expedients for establishing the described relation between the movements of the seat-back and bar, I do not limit myself to the exact mechanism described, nor do I limit myself to bars hung upon the same pivots as the seat-backs are, because bars differently pivoted would accomplish a part of the objects of my invention; but

What I believe to be new, and desire to secure by Letters Patent, is the following:

1. An open sided car having reversible seat backs and a series of bars located across the side openings or passages and pivoted at one

end of each bar to a fixture of the car, each bar being connected with the seat back forward of that bar, substantially as described, whereby the reversing of the seat back will raise the connected bar and open the passage to that seat.

2. An open sided car having reversible seat backs and a series of bars located across the side openings or passages and pivoted at one end of each bar to a fixture of the car, each bar being connected with the seat back forward of that bar and the midway portion of the bar standing out freely from the face of the said fixture, substantially as described, whereby the reversing of the seat back will raise the bar to a vertical position to serve as a handle, and at the same time open the passage-way to the same seat.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN R. GATHRIGHT.

Witnesses:

FRANK D. PERRY,

JOHN F. CURRAN.