

(No Model.)

J. ANDREWS, Dec'd.

THE UNION TRUST COMPANY, of Pittsburg, Pa., Administrator.

RAILWAY CAR.

No. 596,227.

Patented Dec. 28, 1897.

Fig. 1.

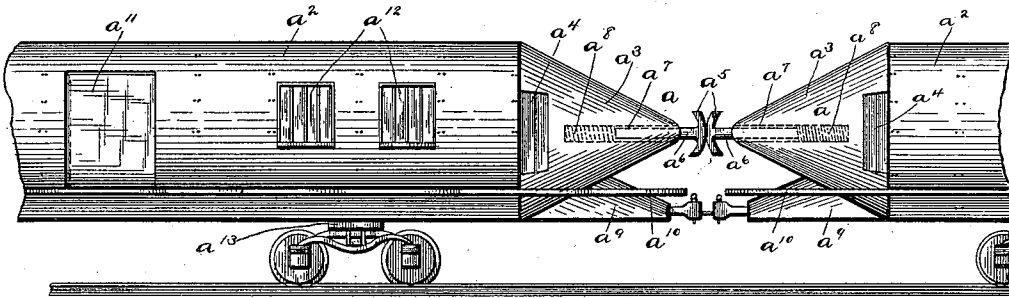


Fig. 2.

Fig. 3.

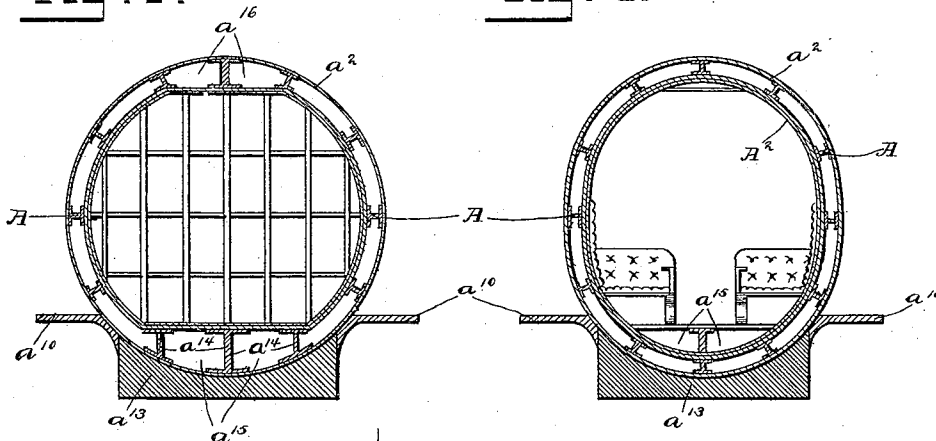
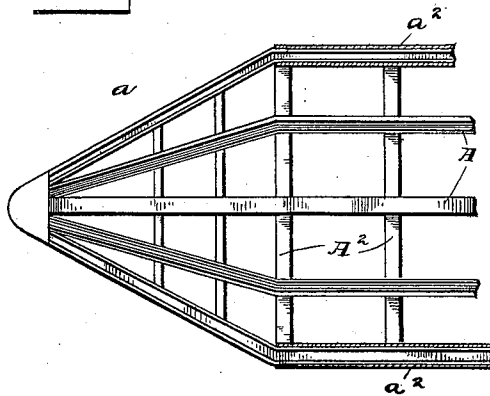


Fig. 4.



Witnesses:

H. S. Bell.
 E. H. Parry.

Inventor:

James Andrews
 by A. S. [Signature]
 his attorney.

UNITED STATES PATENT OFFICE,

JAMES ANDREWS, OF ALLEGHENY, PENNSYLVANIA; THE UNION TRUST COMPANY, OF PITTSBURG, PENNSYLVANIA, ADMINISTRATOR OF SAID ANDREWS, DECEASED.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 596,227, dated December 28, 1897.

Application filed October 20, 1896. Serial No. 609,434. (No model.)

To all whom it may concern:

Be it known that I, JAMES ANDREWS, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railway-cars.

The objects of the invention are to reduce the weight of a car and at the same time increase its strength to resist strains and shocks, to render a car fire and burglar proof, to prevent telescoping in case of collision, to reduce the resistance offered by the air to the passage of a car running at a high rate of speed, and to cheapen the production and at the same time render a car more durable for service than those in common use.

With these objects in view the invention consists in the novel construction and combination of parts of a railway-car, as will be hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification and in which like letters of reference indicate corresponding parts, Figure 1 is a view in side elevation of a combined mail, express, and baggage car constructed in accordance with my invention, showing the device at the ends thereof to prevent telescoping. Fig. 2 is a view in cross-section, showing more particularly the shape of the car and also the manner of heating and ventilating the same. Fig. 3 is a view similar to Fig. 2, showing the car adapted for use as a passenger-coach, the car-body in this instance being slightly flattened at its sides. Fig. 4 is a view in plan of a portion of the skeleton frame of the car-body.

The frame of the car is composed of longitudinal beams A and transverse beams A², the latter being bent to a circle or to the shape the car is to be in cross-section—in this instance circular or approximately circular—bolts or rivets being employed for holding the beams assembled. The beams A at each end of the car are bent to meet at a common cen-

ter or point, forming an approximately cone-shaped projection *a*, which constitutes the antitelescoping attachment or device. The exterior of the car is to be covered with a suitable sheathing—in this instance by metallic plates *a*², preferably of steel—and may be assembled in either “carvel-built” or “clencher-built” style, as may be found desired or necessary. The inner walls of the car may be covered with thin sheets of metal, which may be rolled, pressed, stamped, or otherwise formed into ornamental panels.

Each of the projections *a* is to be covered or incased by a metal casing or casting *a*³, constituting an armor or nose plate, in which is formed suitable openings or spaces *a*⁴ for ventilating purposes. Projecting from each of these plates is a buffer *a*⁵, the shank *a*⁶ of which is seated and works in a recess *a*⁷, formed in the projection, a spring *a*⁸ at the rear end of the shank serving to take up shocks, as will be understood. Where a train is composed of this form of car, the couplers may be located beneath the buffers, as usual; but where one of these cars is to be employed in a train composed of the ordinary style of car it is necessary to provide suitable means for effecting the coupling. This is accomplished by providing extensions *a*⁹ at the front and rear of the car, which extensions will carry any preferred form of coupler.

Extending the length of the car and on each side thereof is a foot-board *a*¹⁰, which subserves the function of the steps ordinarily employed at the ends of a car. This foot-board may be fixed or be adapted to be folded up against the side of the car, or it may extend but a portion of the length of the car, as just in front of the door or doors.

The car is to be provided in its sides with one or more doors *a*¹¹ and with suitable windows *a*¹², as shown in Fig. 1. It may also be partitioned off into compartments constituting, say, a mail-car, a baggage-car, an express-car, and so on.

At each end of the car-body a platform *a*¹³ is provided, to which the trucks are secured, and as these latter may be of any preferred construction a detailed description of them is deemed unnecessary.

On the bottom of the interior of the car are arranged three or more I-beams a^{14} , upon which rests the flooring, the latter being preferably of metal covered with cement or other non-combustible material, the spaces a^{15} formed between the beams being utilized for the purpose of heating the car, either by arranging the steam-pipes therein or employing them as conduits for hot air. The top of the car is provided with suitable ventilators a^{16} of any preferred type. Instead of locating these ventilators in the top of the car they may be arranged in the sides near the top, as usual.

As shown in Fig. 3, the sides of the car may be slightly flattened where it is to be used as a passenger-coach, suitable seats being provided, as in ordinary coaches.

It is to be understood that either form of car illustrated is adapted for use as a mail, express, baggage, passenger, parlor, or sleeping car, and as this is obvious neither description nor drawing is deemed necessary.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A car having its frame composed of longitudinal and transverse beams, the latter being bent to the shape the car is to be in cross-section, the longitudinal beams being projected beyond the transverse beams and brought to a point to constitute an antitele-scoping device, substantially as described.

2. A car having its frame composed of longitudinal and transverse beams, the latter being bent to the shape the car is to be in cross-section, the longitudinal beams being projected beyond the transverse beams and brought to a point, a sheathing inclosing the body portion, and a casing or casting inclosing the pointed portion of the ends, substantially as described.

3. A car having its frame composed of longitudinal and transverse beams, the latter being bent to the shape the car is to be in cross-section, the longitudinal beams being projected beyond the transverse beams and brought to a point, a sheathing inclosing the body portion, a casing or casting inclosing the pointed portion of the ends, doors and windows arranged in the sides of the car-body, and a platform extending along each side of the car, substantially as described.

4. A car having its frame composed of longitudinal and transverse beams, the latter being bent to the shape the car is to be in cross-section, the longitudinal beams being projected beyond the transverse beams and brought to a point, a sheathing inclosing the exterior and interior of the body portion, and a casing or casting inclosing the pointed portion of the ends, substantially as described.

5. A car having its frame composed of longitudinal and transverse beams, the latter being bent to the shape the car is to be in cross-section, the longitudinal beams being projected beyond the transverse beams and brought to a point, an exterior sheathing inclosing the body portion, and an interior sheathing suitably ornamented or upholstered, and spaces arranged between the two sheathings along the bottom of the car to be utilized in heating the same either by arranging steam-pipes therein, or employing them as conduits for hot air, substantially as described.

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

JAMES ANDREWS.

Witnesses:

HARRY W. GLEFFER,
E. E. ANDREWS.