

(No Model.)

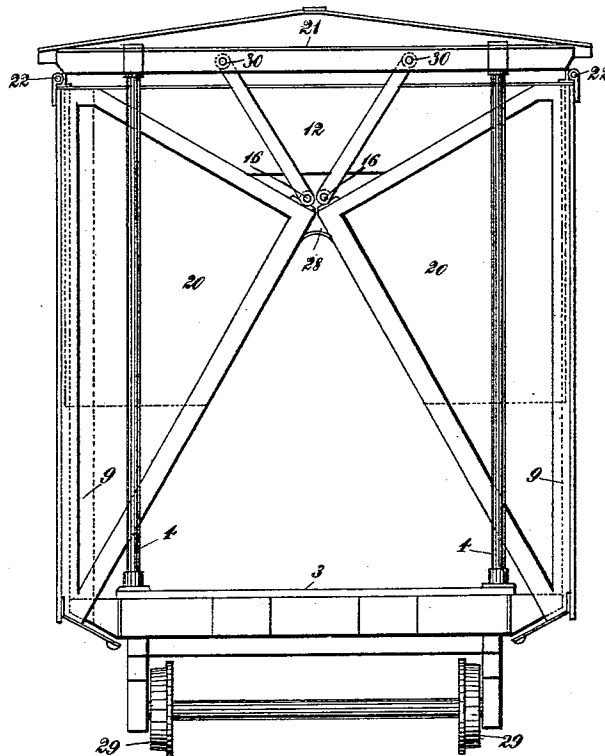
2 Sheets—Sheet 1.

A. BIERSTADT.
RAILWAY CAR.

No. 559,963.

Patented May 12, 1896.

Fig. 1.



Witnesses:

John Buckler,

Charles F. Patterson.

Inventor:

Albert Bierstadt

By Simonds, Burdett & Brothingham
his attorneys.

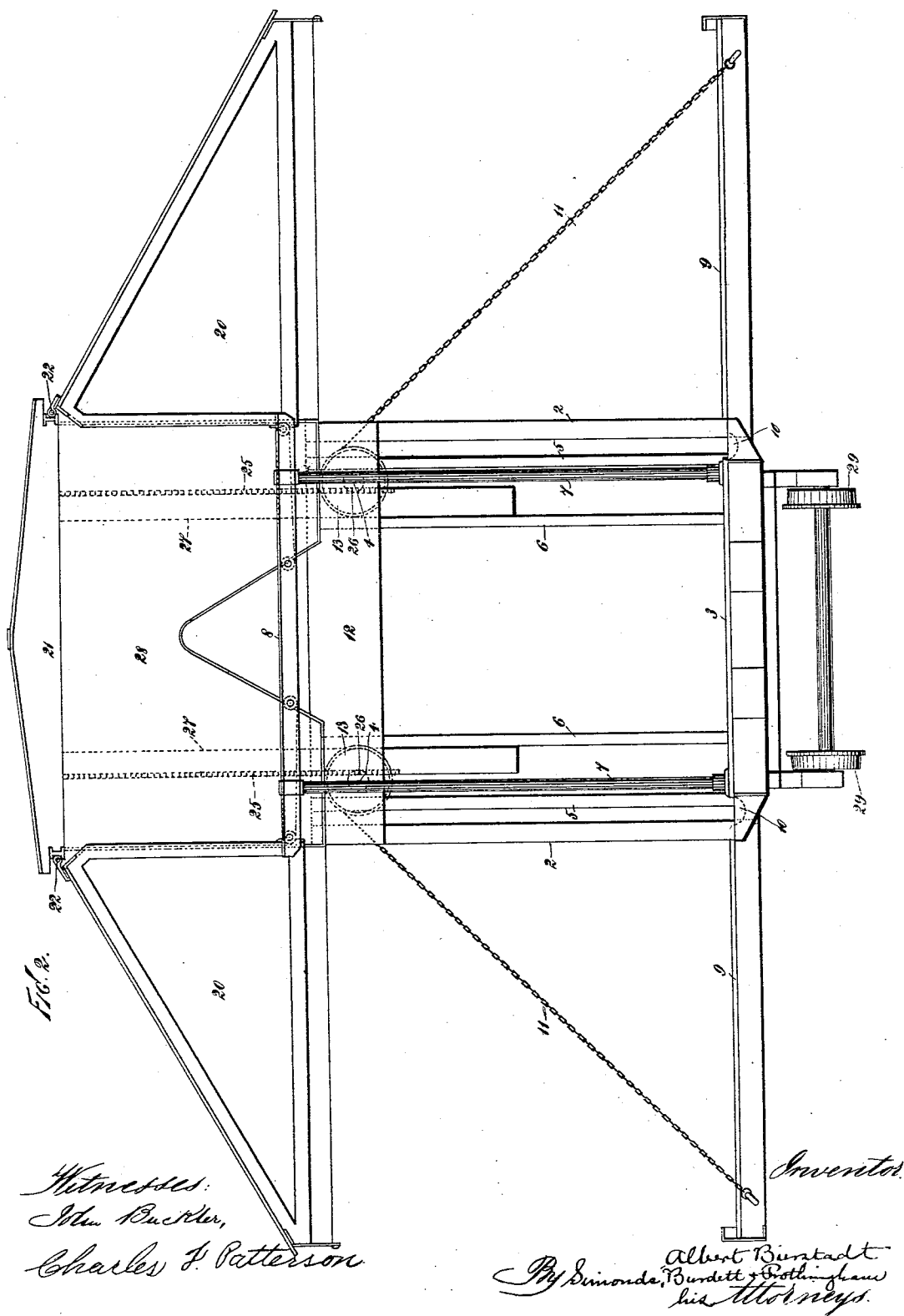
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Inventor:
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UNITED STATES PATENT OFFICE.

ALBERT BIERSTADT, OF NEW YORK, N. Y.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 559,963, dated May 12, 1896.

Application filed May 12, 1894. Serial No. 510,962. (No model.)

To all whom it may concern:

Be it known that I, ALBERT BIERSTADT, a citizen of the United States, residing at New York, in the county and State of New York, have invented a new and useful Improvement in Railway-Cars, the same comprising improvements upon the apparatus shown and described in my application filed June 2, 1893, Serial No. 476,343, and in my application filed June 12, 1893, Serial No. 477,370.

The following is a specification of my present invention, the object of which is to provide a railway-car or other like vehicle having a side wall or walls which are movable and extensible, and thereby capable of forming wings or enlargements of the car, with an extensible roof which is capable of being raised or lowered simultaneously with the lowering or raising of that part of the side wall of the car which forms the wing floor and which at the same time that it is raised or lowered raises or lowers that portion of the side wall which forms the wing roof. The object is further to provide suitable means for producing the results above referred to.

I attain the objects desired by means of the mechanism illustrated and described in the accompanying drawings.

The invention is shown and described as applied to a railway-car.

Referring to the drawings, Figure 1 is an end view of my improved car with the side walls closed and the extensible roof lowered. Fig. 2 is an end view of my improved car with the side walls unfolded and the extensible roof raised.

In the accompanying drawings, the numeral 3 denotes the floor of the car.

7 denotes upright posts made of metal or other suitable material attached rigidly to the floor, extending upward and forming supports for the roof of the car.

8 is a brace attached to the upper part of the posts 7.

2, 5, and 6 are posts also attached to the floor of the car and attached at their upper parts to the beam 12, on which is fastened the shaft and drum, by means of which, with their connections, the extensible roof, together with wing roof, is raised or lowered simultaneously with the lowering or raising of the wing floor.

9 denotes a portion of the side wall hinged to the floor, which portion when opened and moved outwardly on its hinges forms a wing floor.

10 denotes the hinges last above referred to.

11 denotes chains attached to the portion 9 near its outer end passing around a drum 13, securely attached to the shaft 4.

20 denotes a portion of the side walls hinged to the extensible roof 21, which portion when raised forms the wing roof.

22 denotes the hinges last above referred to.

The part 20 when closed forms the outside portion of the side walls and when thus closed may be held in place by any suitable device.

15 is a lever, an end of which is pivoted to the brace 8 at 30 and the other end pivoted to the portion 20 at 16. The extensible roof 21 is raised by means of the rack-and-pinion device 25 and 26, the latter being attached rigidly to the shaft 4.

27 denotes posts to which the racks are attached.

28 is the end wall of the extensible roof.

The operation of raising the extensible roof is as follows: When power is applied to the shafts 4, either separately or together, the shafts are rotated, thereby causing the rack-and-pinion device to operate in such a manner as to raise the extensible roof and also thereby causing the chains 11 to unwind from the drum 13, and at the same time raising the portion 20, which moves upwardly, as it is attached to the extensible roof, and also outwardly by means of the lever 15, which also acts as a brace when the wing roof is extended.

29 denotes the wheels of the car.

The operation in closing the car is the reverse of that in enlarging it.

It is obvious that the car may be of any suitable size and may be made of the material ordinarily used in the construction of Pullman cars.

The car when closed will be preferably of the size of ordinary Pullman cars and as are generally arranged to be attached with passenger-trains.

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

1. A railway-car or other like vehicle provided with an extensible roof and a wing roof

20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, substantially as described.

2. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, and a movable portion adapted to form a wing floor, substantially as described.

3. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20, adapted to be raised or lowered simultaneously with the raising and lowering of said extensible roof, and a swinging portion adapted to form a wing floor, substantially as described.

4. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20, adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, and a movable portion adapted to form a wing floor and to be lowered or raised simultaneously with the raising or lowering of said extensible roof and wing roof, substantially as described.

5. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, and a swinging portion adapted to form a wing floor and to be lowered or raised simultaneously with the raising or lowering of the extensible roof and wing roof, substantially as described.

6. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, and means for producing such simultaneous action, substantially as described.

7. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, means for producing such simultaneous action and a movable portion adapted to form a wing floor, substantially as described.

8. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20,

adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, means for producing such simultaneous action and a swinging portion adapted to form a wing floor, substantially as described.

9. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20, adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, a movable portion adapted to form a wing floor and to be lowered and raised simultaneously with the raising or lowering of said extensible roof and wing roof, and means for producing such simultaneous action, substantially as described.

10. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20 adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, a swinging portion adapted to form a wing floor and to be lowered or raised simultaneously with the raising or lowering of the extensible roof and wing roof, and means for producing such simultaneous action, substantially as described.

11. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20, adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, an outwardly-swinging portion adapted to form a wing floor and to be lowered or raised simultaneously with the raising or lowering of said extensible roof and wing roof, and means for producing such simultaneous action, substantially as described.

12. A railway-car or other like vehicle provided with an extensible roof, a wing roof 20, adapted to be raised or lowered simultaneously with the raising or lowering of said extensible roof, the lever 15 connected to the wing roof and the brace 8 and a swinging portion adapted to form a wing floor and to be lowered or raised simultaneously with the raising or lowering of the extensible roof and wing roof, substantially as described.

ALBERT BIERSTADT.

Witnesses:

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FRANCIS T. MORTON.