

A. J. EARLING.
RAILWAY CAR.
APPLICATION FILED APR. 23, 1910.

1,013,001.

Patented Dec. 26, 1911.

Fig. 1.

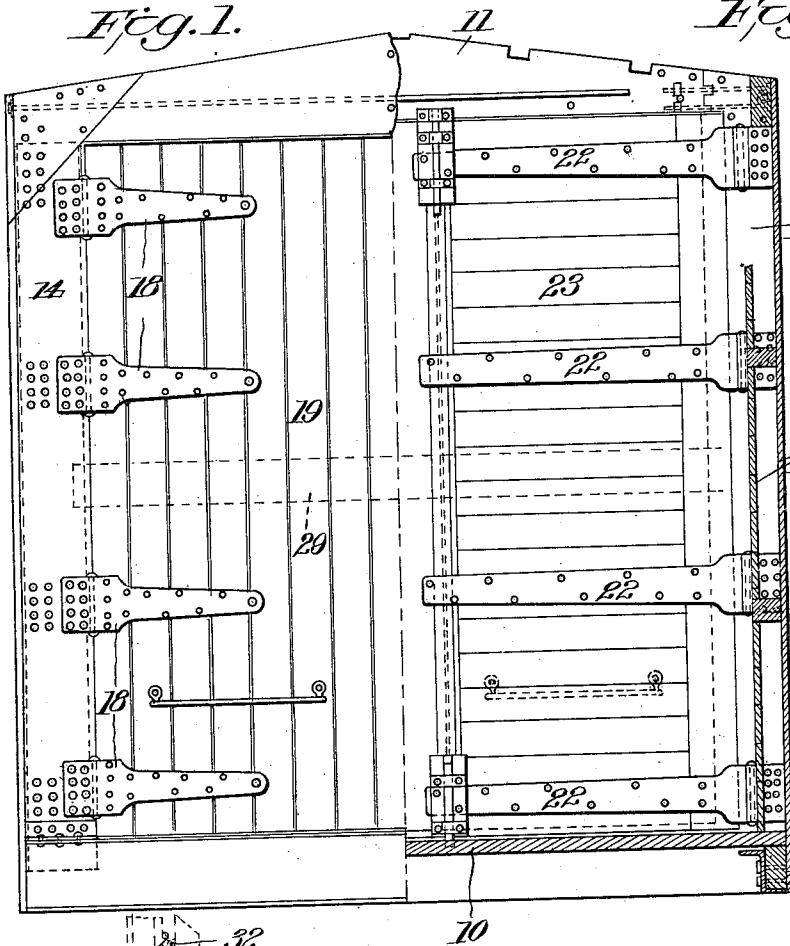


Fig. 2.

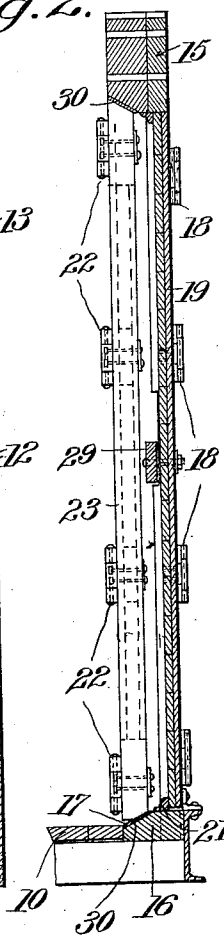
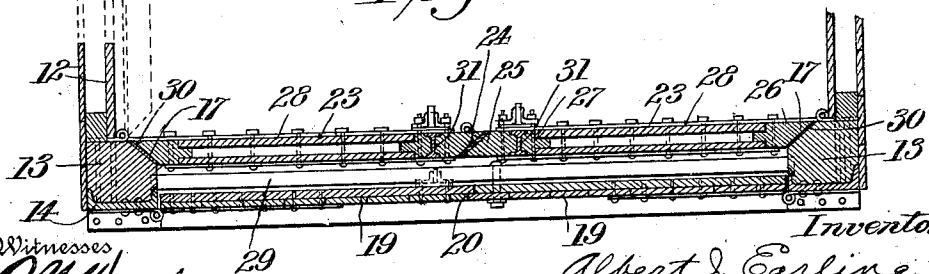


Fig. 3.



Witnesses
B. Wacker
Elmer King

Inventor.
Albert J. Earling
By *Henry P. Blair* Attorney

UNITED STATES PATENT OFFICE.

ALBERT J. EARLING, OF CHICAGO, ILLINOIS.

RAILWAY-CAR.

1,013,001.

Specification of Letters Patent.

Patented Dec. 26, 1911.

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To all whom it may concern:

Be it known that I, ALBERT J. EARLING, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Railway-Cars, of which the following is a specification.

This invention relates to certain new and useful improvements in railway cars, and pertains more particularly to the doors of freight cars.

The object of the invention is to provide the end of a box car, or the like with a combination of end doors which will allow the loading of any class of freight, including bulk grain, coal, lumber, or other merchandise.

A further object is to so construct the doors that when loading carriages, automobiles, machinery, etc., which require only space, that the inner door or bulk head may be securely locked to the side of the car in order to permit of the full length of the latter to be used.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings:—Figure 1 is an end elevation of a freight car, parts being in section, illustrating my improved car door. Fig. 2 is a vertical sectional view of a portion of a freight car. Fig. 3 is a horizontal sectional view of the end of the car illustrated in Fig. 1.

Referring to the drawing 10 designates the floor of the car, 11 the roof, and 12 the sides thereof. Each corner of the car is provided with a vertical beam 13, secured to the top beam 15 and sill 16 at each end. The sides of the car embrace two faces of each corner beam 13 and the outer end face of each corner beam is braced by a corner iron 14. The inner corner of each of the corner beams 13 is beveled off, and one edge of each of the top beams 15 and sill 16 are also similarly beveled as indicated at 17. It will be noted that the sill 16 extends upon the plane of the floor 10 and that the bevel 17 extends from the top face of said sill downwardly to the top of the floor. Riveted or otherwise secured to the channel irons 14 are hinges 18 which serve to support the outer doors 19 which when closed are provided with overlapping edges 20. These doors swing outwardly and their inward movement is limited by

suitable stops 21. The bottom edges of said doors come approximately flush with the top face of the sill 16.

Hinges 22 are secured to the inner faces of the vertical beams 13, in any suitable manner, and serve to support the inner doors 23, the meeting edges of said doors being beveled as indicated at 24. Each door is formed of two upright beams 25, 26, having shoulders 27 to receive the laterally extended timbers 28, secured in position in any suitable manner. The doors 19 are held in closed position by means of a locking bar 29 pivoted to one door and adapted to swing across both doors and engage suitable notches in the upright beams 13. The bottom edge of each door is approximately flush with the top of the floor 10. The beveled portions of the beams 13 and 15 and the sill 16 are lined with canvas or other similar material as indicated at 30, and the top, bottom and hinged end edges of the doors 23 are each beveled to fit the beveled portions 17, being also lined with canvas or other suitable fabric. The beveled edges 24 are also lined in a similar manner, and the beams upon which said beveled meeting edges are formed, are reinforced by metallic I-beams 31. Each of the doors 23 is provided with an eye 32 adapted to be engaged by a hook 33 secured to the side of the car, whereby said doors may be hooked back when not in use.

In practice when it is desired to load grain, coal, or other bulk freight, the doors 23 are closed as indicated in Fig. 2, the canvas causing a tight fit at the beveled joints, and preventing the sifting of such material therethrough. It will be readily understood that the doors will be tightly closed by means of the load pushing them home and adjusting the beveled surfaces with relation to each other causing tight joints at every point. When it is desired to load carriages, automobiles, machinery, etc., which require only space, the inner doors are locked in an open position against the side of the car, thereby permitting the full length of the car to be used.

Having thus explained the nature of my invention and described a manner of constructing and using the same, although without attempting to set forth all of the forms in which it may be made or all of the modes of its use, what I claim is:—

1. The combination with a railway car

provided with upright corner posts, said
corner posts at each end being connected by
a top beam and a sill, said sill extending
above the plane of the floor of the car, the
5 sides of the car being secured to the two
faces of each of said corner posts, the inner
corner of each corner post being beveled off,
hinges secured to the outer end faces of said
corner posts, and doors supported by said
10 hinges and having their bottom edges flush
with the top face of the contiguous sill, and
doors hinged to the beveled portions of said
corner posts and having their bottom edges
approximately flush with the floor of the car,
15 said doors abutting said sill and top beam.

2. The combination with a railway car
provided with upright corner posts, said
corner posts at each end being connected
by a top beam and a sill, said sill extending
20 above the plane of the floor of the car, the
sides of the car being secured to two faces

of each of said corner posts, the inner cor-
ner of each corner post being beveled off,
hinges secured to the outer end faces of said
corner posts, doors supported by said hinges 25
and having their bottom edges flush with the
top face of the contiguous sill, and doors
hinged to the beveled portions of said cor-
ner posts and having their bottom edges ap-
proximately flush with the floor of the car, 30
said doors abutting said sill and top beam,
the inner edges of said top beam and sill be-
ing beveled, the edges of the last mentioned
doors being beveled to engage the beveled
faces of said corner posts, top piece and sill. 35
In testimony whereof I have hereunto set
my hand in presence of two subscribing
witnesses.

ALBERT J. EARLING.

Witnesses:

EWM. KENNA,
BURTON HANSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."