

No. 682,622.

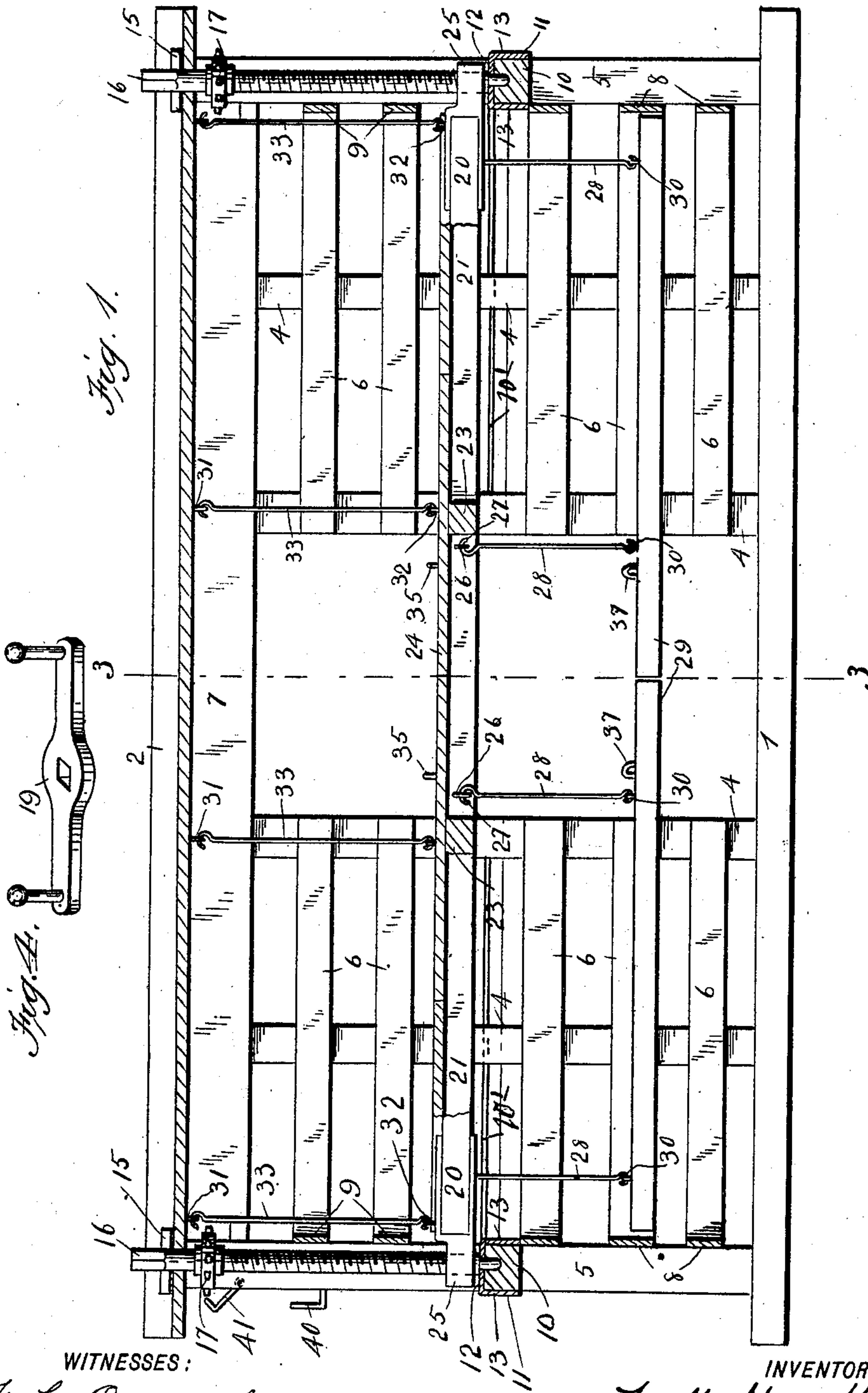
Patented Sept. 17, 1901.

F. M. HUMPHREY.
DOUBLE DECK CAR.

(Application filed May 22, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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J. E. Lambert.

INVENTOR

F. M. Humphrey

BY

John S. Duffie
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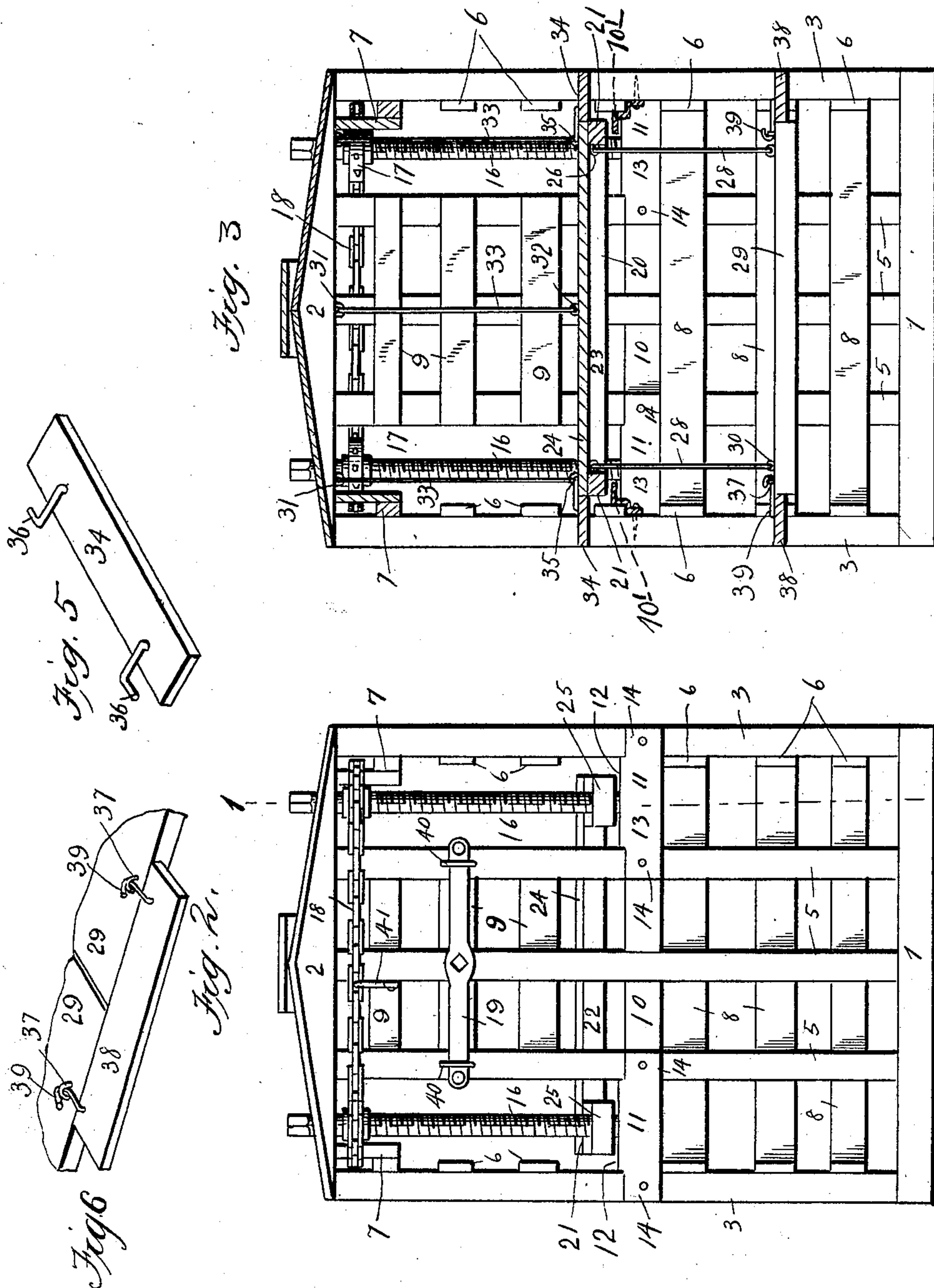
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UNITED STATES PATENT OFFICE.

FRANCIS M. HUMPHREY, OF PENDLETON, OREGON.

DOUBLE-DECK CAR.

SPECIFICATION forming part of Letters Patent No. 682,622, dated September 17, 1901.

Application filed May 22, 1901. Serial No. 61,409. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS M. HUMPHREY, a citizen of the United States, residing at Pendleton, in the county of Umatilla and State of Oregon, have invented certain new and useful Improvements in Double Deck Cars, of which the following is a specification.

My invention relates to certain new and useful improvements in freight-cars, wagons, and other vehicles used for carrying freight of all kinds, and especially to improvements in the patent issued to William C. Campbell and Francis M. Humphrey, of Pendleton, Oregon, dated January 29, 1901, numbered 666,734, consisting of a body, an adjustable deck, and one or more platforms, said deck and platforms provided with folding aprons.

In the accompanying drawings, Figure 1 is a side elevation of my invention, partly in section, cut on the line 1 1 of Fig. 2. Fig. 2 is an end view. Fig. 3 is a cross-sectional view cut on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of the lever. Fig. 5 is a perspective view of one of the deck-aprons with its means of being attached to the deck. Fig. 6 shows parts of the platforms abutting each other, with an apron hinged thereto.

My invention is described as follows:

1 is the bottom of the body of the coach. 2 is the top. 3 represents the corner-posts; 4, the side posts; 5, the end posts; 6, the side slats; 7, the chain-guide; 8, the end slats to the lower half of the car, and 9 the end slats to the upper half of the car.

Running across the ends of the coach and equidistant between the bottom and the top thereof and firmly secured to the corner-posts and end posts is a strong cross-beam 10. This beam has on each end a bearing and protection plate 11, consisting of the bearing part 12, which is perforated and rests on the top of the beam. Integral with said bearing part are two flanges 13, that turn down at right angles to said bearing part and rest against the side faces of said beam 10. These flanges have on each end extensions 14, which are long enough to be secured to and are secured to the corner-posts and to the two outer end posts, thus giving very strong and substantial bearings to the threaded rods hereinafter described and also protecting the said cross-beams. On the top of the coach and imme-

diately over the perforated part of said bearing-plates are bearings 15. Revolving in the perforations of the bearings 11 and the bearings on the top of the coach are threaded cylindrical rods 16. These rods are four in number, one at each corner of the body, and they are threaded their entire length inside of the body of the coach. Just above the threading on these rods are rigidly secured, one on each, sprocket-wheels 17. These sprocket-wheels are all the same size, and their cogs are also the same size, and all the same distance from each other. Running around the entire body and over these sprocket-wheels is an endless sprocket-chain 18, so that when either one of these rods is revolved all the other three revolve at the same time, at the same speed, and by the same chain. The upper ends of these rods are made square, and adapted to fit on either one of these rods is a lever or levers 19.

Sprocket-chain guide-tracks 7, consisting of L-shaped pieces, one on each side of the coach, have their lower extensions secured to the inner faces of the end and side posts, their upper parts extending upwardly, thereby leaving between said upper parts and said side posts tracks for the sprocket-chain to run in.

An adjustable deck 20 as long and as wide as the inner surface of the body of the coach and made of side timbers 21, end timbers 22, and middle timbers 23, provided with a suitable floor 24, has secured to each corner a threaded bearing 25, which works on the threaded rods 16, so that when the threaded rods 16 are turned to the right said deck 20 ascends and when turned to the left descends, or the reverse, using either right or left handed threaded rods or screws. In addition to the cross-beams 10 and the threaded bearings 25 there is on each side of the coach and securely fastened to the inner side thereof and running at right angles to the beams 10 flanges 10', their upper faces being flushed with the upper faces of said beams. These flanges run all the way around the coach, and the purpose thereof is to assist in supporting the platform 20 when lowered to the top of the beams 10, or the reverse, using either right or left handed rods or screws.

Secured to the inner faces of the side timbers 21 are eyes 26. Depending from the said

eyes are rods 28, having hooks in their upper and lower ends.

About equidistant between the floor and the deck are two platforms 29, having in their upper faces eyes 30, corresponding with the eyes 26 just above mentioned. These platforms 29 may be unhooked and are suspended by means of the rods 28 just above mentioned. There may be suspended under these platforms 29 other platforms in the same manner as above described, which would occupy about the same or nearly the same position that these platforms do if the deck was wound up near the top of the coach.

Secured to the under face of the top of the coach are eyes 31, and secured to the upper face of the deck are eyes 32, corresponding to the eyes 31 just above mentioned, and this upper deck is secured in position by rods 33, having hooks on each end, so that these rods may be taken out and removed if necessary. The purpose of these rods, hooks, and eyes is to relieve the strain on the threaded rods.

Hinged to the deck 20 and on each side and adapted to fit in the doors of the coach are floor extensions 34. The floor extensions are secured thus: In the deck are two eyes 35. Not far distant from the middle side posts and in the upper face of said floor extensions are two hooks 36, that are pivoted in said floor extensions, so that they may be unhooked and the extensions taken out at will.

In the upper faces of the platforms 29 and near the middle side posts are eyes 37, adapted to receive hooks, and hinged between the two middle posts and to the two platforms are floor extensions 38. Said floor extensions are hinged by means of two hooks 39, which are securely fixed in said extensions. The points of said hooks run through the eyes 37 and then turn back, so that the extensions can be turned up and over onto the platforms and the hooks drawn out and the extensions removed. When this is done, the rods hooked to the platforms and to the hooks in the timbers of the deck may be removed, and then the platforms may be turned edgewise and taken out of the door.

The object in having but one apron at each side of the coach to the two platforms is to tie them together, so that they cannot separate and leave a space between their two inner ends to the danger of stock.

To one end of the car is secured two hooks 40, in which rest the lever 19 when not in use.

To one end of the car and one of the middle end posts is secured a lock 41, which locks into the sprocket-chain and keeps it from moving, and thus keeps the threaded posts from turning while the lock is on.

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

1. In a freight-car substantially as described, eyes secured to the deck inside of the car-door openings; floor extensions fitting in said car-door openings; hooks pivoted to said floor extensions and adapted to be turned in and out of said eyes, substantially as shown and described and for the purposes set forth.

2. In a freight-car having an upper deck substantially as described, removable platforms, one in each end meeting in the center, and suspended from the lower face of said deck, by means of eyes and hooks; eyes secured to said platforms inside of the coach-doors; floor extensions fitting in said coach-door openings; hooks secured to the upper faces of said floor extensions, their points turned up; said hooks adapted to be hooked into said eyes and removed therefrom, substantially as shown and described and for the purposes set forth.

3. The combination of a car-body, beams secured across the ends of said body, equidistant from the top and bottom; bearing-plates, resting on the upper faces of said beams; bearings in the top of the body, corresponding with said last-mentioned bearings; threaded rods, one in each corner, journaled in said bearings; a deck provided with threaded extensions, one working on each threaded rod; sprocket-chain working around said sprocket-wheels; eyes secured to the under face of the deck; corresponding eyes secured to the upper faces of two suspended and abutting platforms; rods having hooks on each end, and adapted to be hooked in said eyes, substantially as shown and described and for the purposes set forth.

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

FRANCIS M. HUMPHREY.

Witnesses:

E. D. BOYD,

HARRY H. SMITH.