No. 830,413. PATENTED SEPT. 4, 1906.

J. C. COLEMAN & E. W. KESSEL.

RACK CONSTRUCTION FOR REFRIGERATOR CARS.

APPLICATION FILED MAR. 20, 1906.

3 SHEETS—SHEET 1.

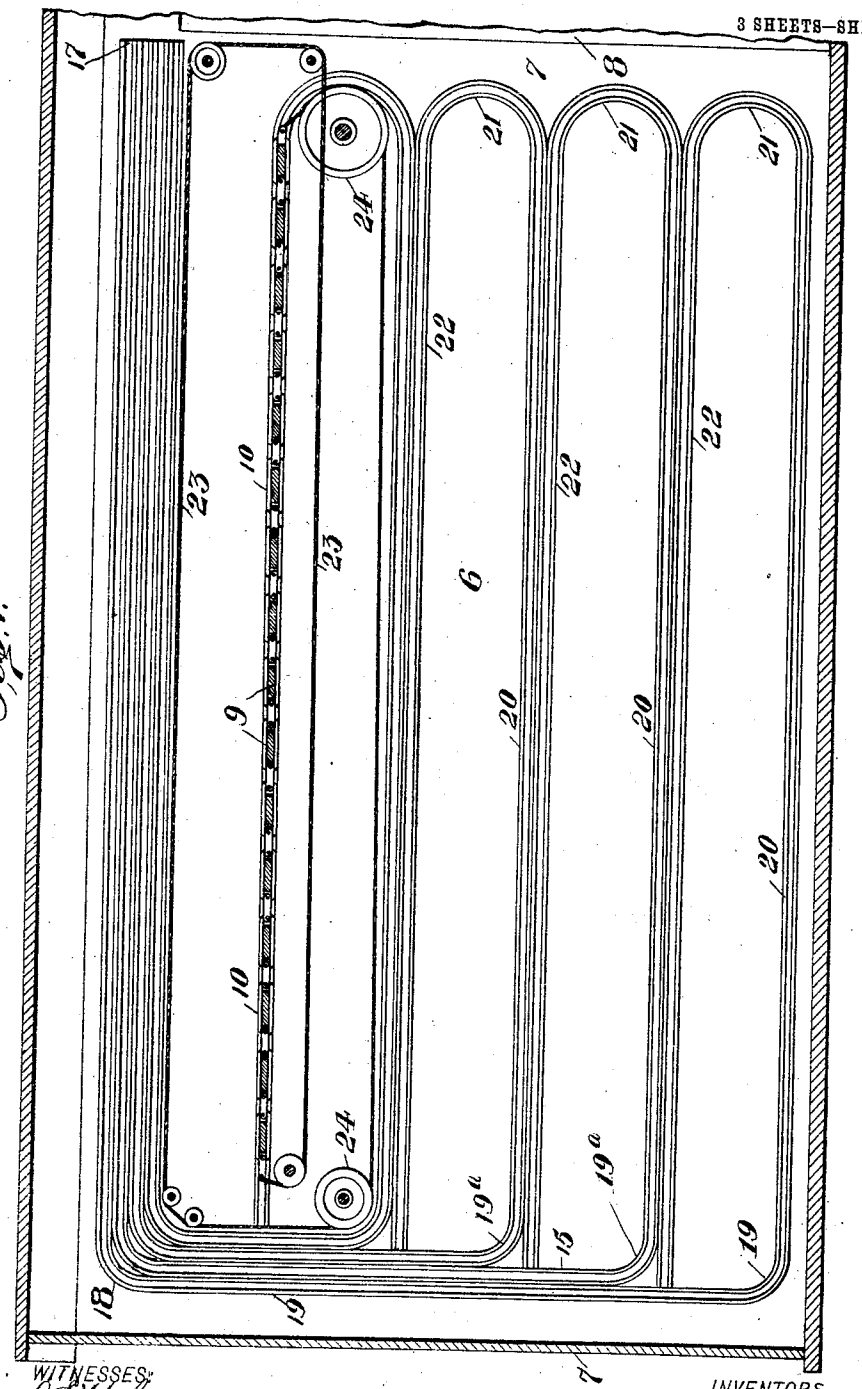


Fig. 1.

WITNESSES:
D. C. Wilson
Jos. A. Ryan

INVENTORS,
John C. Coleman.
Edward W. Kessel.
BY
Munn & Co.
ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 830,413.

PATENTED SEPT. 4, 1906.

J. C. COLEMAN & E. W. KESSEL.

RACK CONSTRUCTION FOR REFRIGERATOR CARS.

APPLICATION FILED MAR. 20, 1906.

3 SHEETS—SHEET 2.

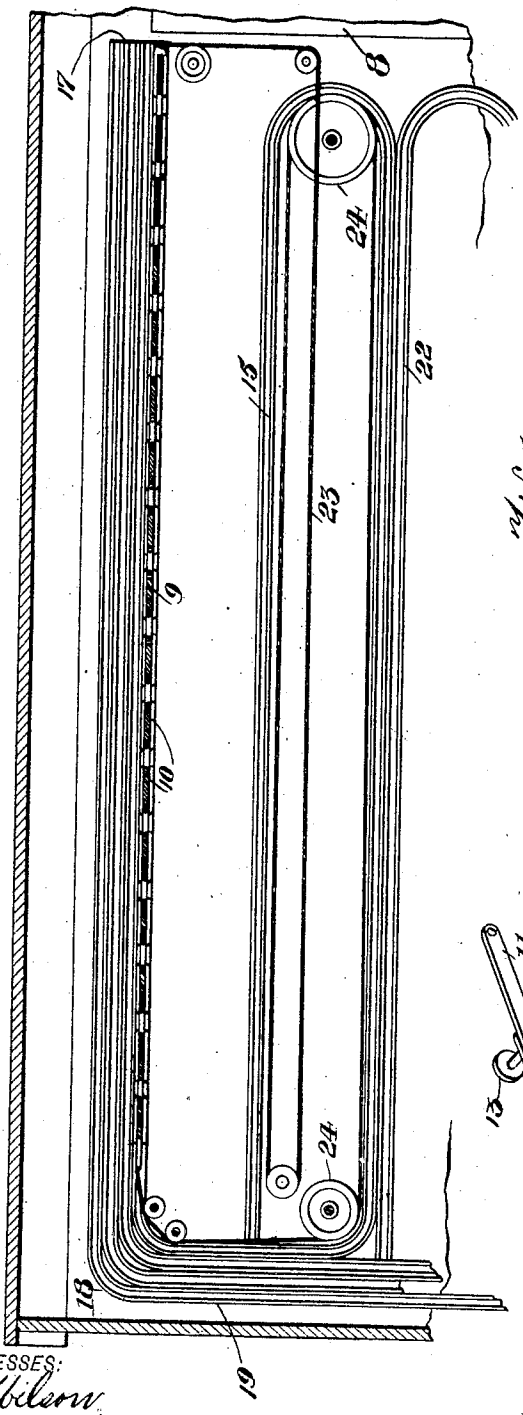


Fig. 2.

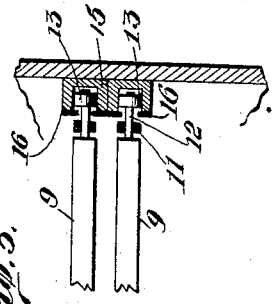


Fig. 5.

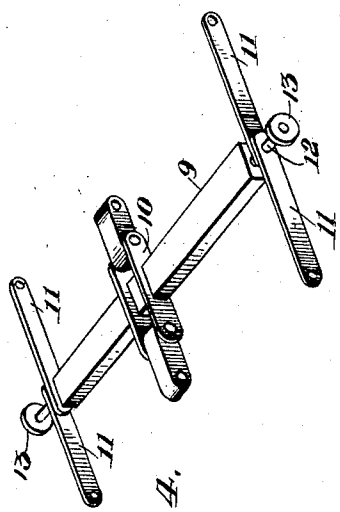


Fig. 4.

WITNESSES:

E. Wilson

Jos. A. Ryan

INVENTORS

John C. Coleman

Edward W. Kessel

BY

Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

No. 830,413. PATENTED SEPT. 4, 1906.

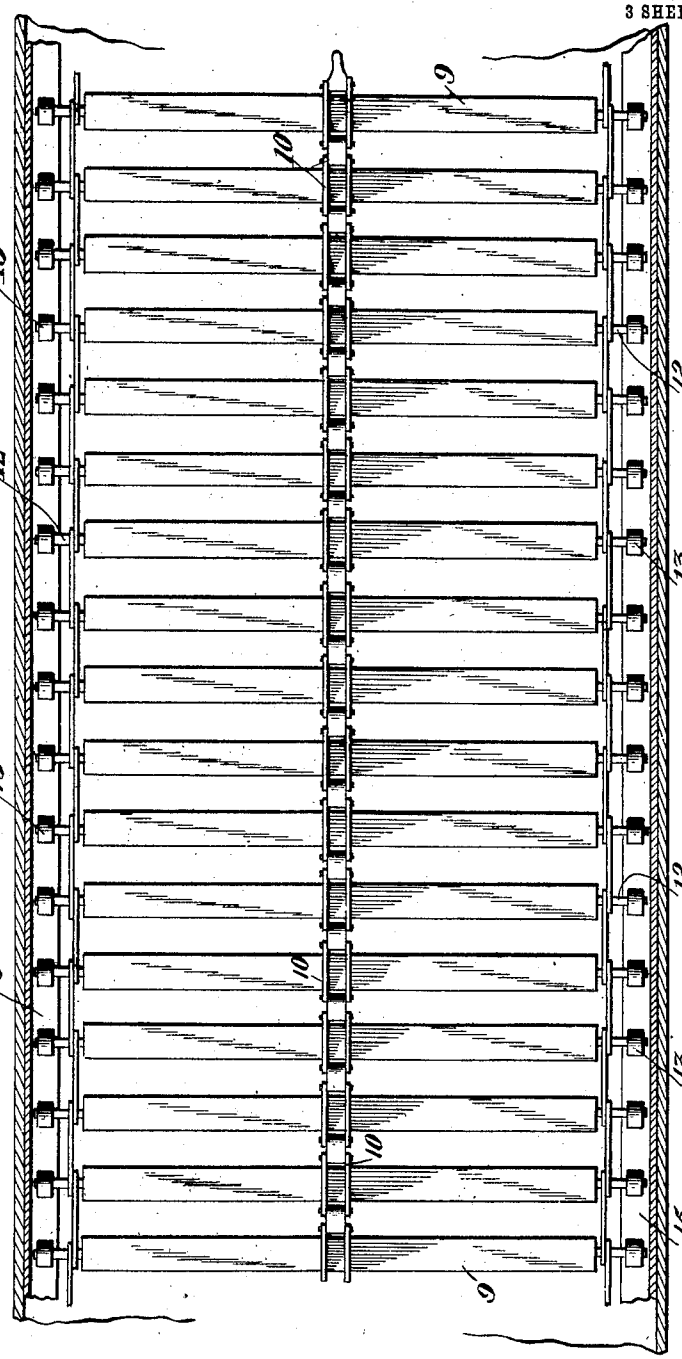
J. C. COLEMAN & E. W. KESSEL.

RACK CONSTRUCTION FOR REFRIGERATOR CARS.

APPLICATION FILED MAR. 20, 1906.

3 SHEETS—SHEET 3.

Fig. 3.



WITNESSES:
D. E. Wilson
Jos. A. Ryan

INVENTORS
John C. Coleman.
Edward W. Kessel.
BY
Munn & Co.
ATTORNEYS

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN C. COLEMAN AND EDWARD W. KESSEL, OF EL PASO, TEXAS.

RACK CONSTRUCTION FOR REFRIGERATOR-CARS.

No. 830,413. Specification of Letters Patent. Patented Sept. 4, 1906.

Application filed March 20, 1906. Serial No. 307,038.

To all whom it may concern:

Be it known that we, JOHN C. COLEMAN and EDWARD W. KESSEL, citizens of the United States, and residents of El Paso, in the county of El Paso and State of Texas, have made certain new and useful Improvements in Rack Constructions for Refrigerator-Cars, of which the following is a specification.

This invention is a rack construction particularly adapted for refrigerator-cars for the transportation of fruits or other produce in bulk, and so arranged and constructed that the racks can be run up next to the roof, out of the way, permitting the car to be used for produce or other freight not requiring the use of racks.

The invention consists of a series of slatted flexible racks, composed of slats connected together by flexible connections, the ends of the slats being provided with rollers which run in guideways on the side walls of the car, the guideways being spaced apart in the lower part of the car to allow room for the fruit thereon, but located close together in parallel position at the top of the car, the upper and lower guideways being connected by vertical guideways at the end of the car, so that the slatted racks may be shoved up into the top of the car when not in use or be drawn down into their several spaced positions in the lower part of the car, so as to receive the fruit thereon. Ropes are connected to the opposite ends of the racks on each side, so that the racks can be pulled up or down. These ropes pass over suitable guide-rollers at the corners or turns of the guideways and form endless cables for the operation of the racks. The racks are the full width of the car and occupy the space between the doorways and the ends of the car, the space across the car between the doorways being left clear for loading or unloading the racks.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of a car, the racks being drawn down into position for use. Fig. 2 is a similar view with the racks shoved up. Fig. 3 is a horizontal section of a car, showing one of the racks in plan. Fig. 4 is a detail perspective view of one of the slats and the connections thereof, and Fig. 5 is a transverse vertical section through one of the sides of the car and the guideways.

Referring specifically to the drawings, the side walls of the car are indicated at 6, the end walls at 7, and the doorways at 8. Four racks are shown in the drawings, each provided with its separate guideways; but obviously more or less racks may be used according to the size or nature of the fruits, vegetables, or other articles being transported. Also the racks may be raised or lowered individually, so that more or less may be drawn down for use, the spaces between the racks being accordingly decreased or increased.

The racks each consist of a series of spaced slats 9, which extend through and are supported upon links of chains 10 and are connected and spaced apart by links 11, of strap-iron, at the ends, pins 12 being used to attach the ends of the links to the ends of the slats, forming flexible joints to allow the racks to run in the curved guideways. The ends of each slat are provided with rollers 13 on the projecting pins 12, which rollers run in the guideways formed by cleats or strips 15, secured to the side walls of the car, with retaining-strips 16, projecting within the inner sides of the rollers to hold them in place.

The guideways are located in close parallel relation at the top of the car and in spaced relation in the lower part thereof. The upper runs end at the middle space of the car, as at 17, and are connected by curves 18 to vertical runs 19 at the end of the car and by curves 19^a to lower horizontal runs 20, which lead by curves 21 to the horizontal runs 22 for the position of use. The runs 20 and 22 are located above the corresponding runs of the next lower racks, and the vertical runs are located in close relation at the end of the car. The opposite ends of the racks are connected at each side to the opposite ends of ropes 23, which extend over guide-pulleys 24 at the curves in the track. By means of the ropes the racks may be pulled up or down as needed, and it will be noticed that when the racks are pulled down they travel forwardly or toward the middle of the car and then backwardly. This enables them to be loaded in sections and pushed back gradually as the fruit is put in place, and when unloading the reverse movement is effected.

When the racks are to be used, they are pulled down and loaded in the manner above indicated. The slatted construction permits the cold air supplied by any of the known refrigerating means to circulate freely around the fruit. When not to be used, the racks are pulled up into the top of the car, leaving the main space clear for other purposes.

What we claim is—

1. A car having therein a storage-space for racks, and a load-space for the same, guideways extending from one space to the other, pulleys arranged along the guideways and a flexible connection between the ends of the individual racks and passing over the pulleys, whereby to move the racks to and from the load-space.

2. A car having on opposite walls therein a set of guideways in close relation in the upper part of the car and in spaced relation in the lower part of the car, flexible racks supported in the guideways, pulleys arranged along the guideways, and a flexible connection between the ends of the individual racks and passing over the pulleys, whereby to move the racks to and from the load-space.

3. A car having on opposite walls therein a set of separate guideways which are disposed in close parallel relation in the top of the car and in spaced relation in the lower part of the car, a flexible rack supported and movable in each guideway, and means to move each rack from upper to lower position.

4. A car having on opposite walls therein a set of separate guideways, each having horizontal runs in the upper and lower parts of the car, respectively, and a vertical run in the end of the car, connecting the same, and a flexible rack supported in each guideway and movable therein to upper or lower position.

5. A car having on opposite walls therein a set of guideways, the respective guideways having horizontal runs located in close parallel relation in the top of the car and vertical runs in the end of the car, and each having upper and lower spaced horizontal runs in the lower part of the car, the lower of said horizontal runs being connected to the vertical run and extending forwardly to the middle of the car and connected at its forward end to the upper horizontal run which extends rearwardly therefrom toward the end of the car, and flexible racks supported and movable in the guideways.

6. A car having therein a series of guideways leading from the upper to the lower part of the car, a series of slatted flexible racks supported in the guideways, and ropes extending along the guideways and connected to opposite ends of the racks, whereby they may be pulled from one position to another, in said guideways.

JOHN C. COLEMAN.
EDWARD W. KESSEL.

Witnesses:
LILLIAN SHELL,
W. KAPTEM.