(No Model.)

B. F. HOLMES.

STOCK CAR.

No. 346,439. Patented July 27, 1886.

Fig. 1.

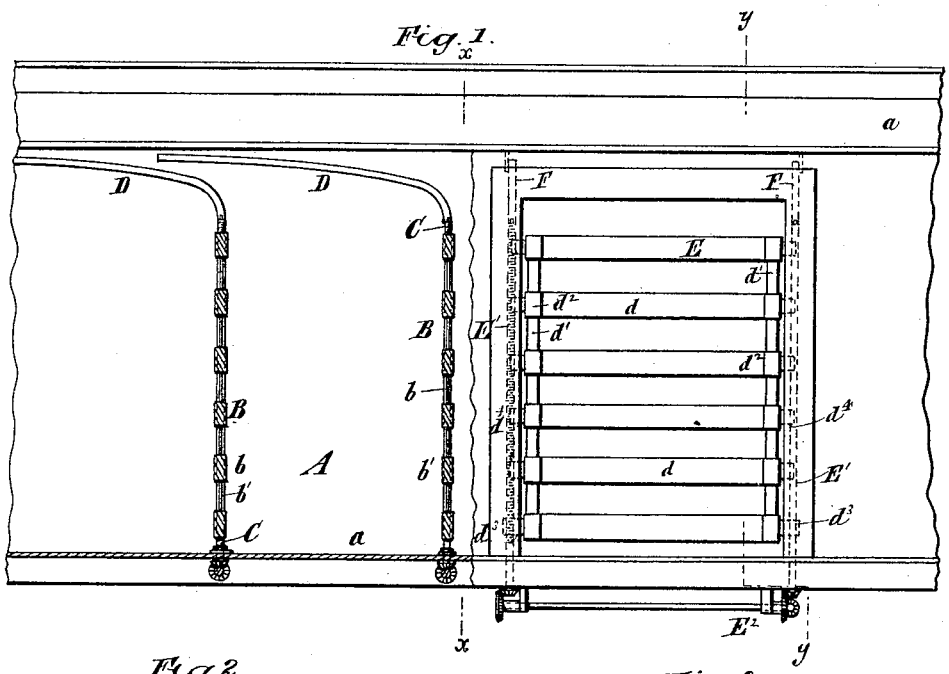

Fig. 2

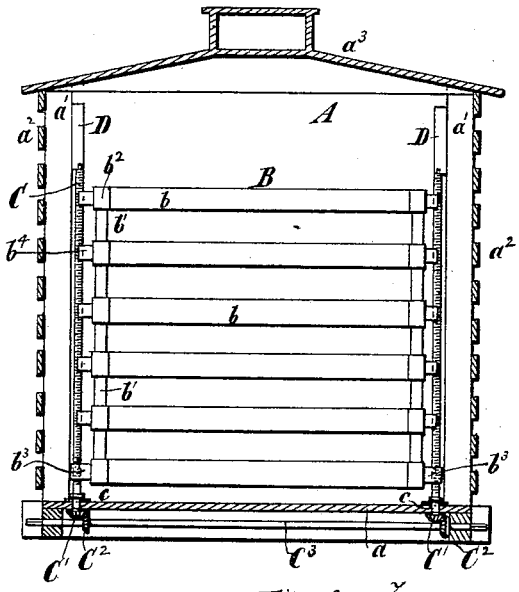

Fig. 3.

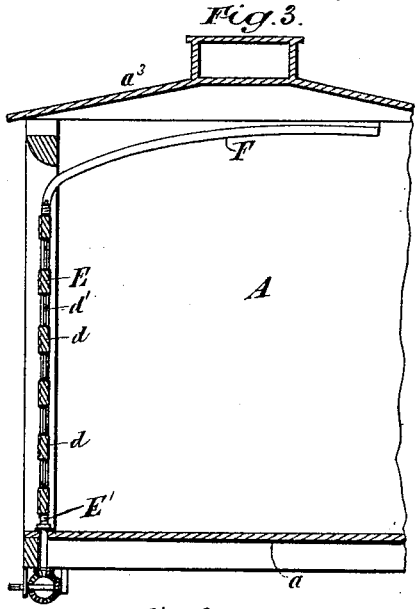

Fig. 4.

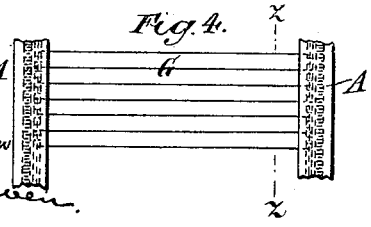

Fig. 5

Fig. 6.

Witnesses
Geo. Wadman
Jas. R. Bowen.

Inventor
B. F. Holmes,
by his attys,
Gifford & Bowen

UNITED STATES PATENT OFFICE.

BENJAMIN F. HOLMES, OF NEW YORK, N. Y., ASSIGNOR TO SAMUEL F. PIERSON, TRUSTEE, OF SAME PLACE.

STOCK-CAR.

SPECIFICATION forming part of Letters Patent No. 346,439, dated July 27, 1886.

Application filed January 14, 1886. Serial No. 188,517. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN F. HOLMES, of New York, in the county of New York and State of New York, have invented a certain new and useful Improvement in Stock-Cars, of which the following is a specification.

My improvement relates to cars such as are used for transporting cattle or live stock generally from place to place. In such cars it is common to employ partitions or doors for dividing them into compartments, and these partitions or doors are made movable, so that they may be got out of the way to enable the cars to be opened from end to end when it is desired to pack them with freight other than live stock. The doors may be the same and operated in the same way as the doors which are used in the sides of the cars to control the entrance and exit ways.

I will describe a car embodying my improvement, and then point out the various features in the claims.

In the accompanying drawings, Figure 1 is a sectional side elevation of a car embodying my improvement. Fig. 2 is a transverse section of the same, taken at the plane of the dotted line *x x*, Fig. 1. Fig. 3 is a transverse section of the same, taken at the plane of the dotted line *y y*, Fig. 1. Fig. 4 is a side view of a portion of a car, showing a modification of certain features of the improvement. Fig. 5 is a transverse section taken through the parts shown in Fig. 4, at the plane of the dotted line *z z*. Fig. 6 is a view of the side edge of the door shown in Figs. 4 and 5.

Similar letters of reference designate corresponding parts in all the figures.

A designates the body of the car. It consists of a floor, *a*, made of boards attached to sills, stanchions *a'*, erected on the sills, and having slats a^2 secured to them, and a roof, a^3.

B designates a number of transverse partitions or doors, made of slats *b* and connecting-strips *b'*, of steel or analogous material. The strips *b'* must be flexible, to allow of the bending of the partitions or doors. It is also important that they be stiff longitudinally, in order that the partitions may be moved in one direction by pushing them from one end. These strips may be continuous from end to end of the partitions or doors, or they may be made in short pieces extending between adjacent slats *b*. They may be secured directly to the slats by rivets or like means, or they may be secured to metal cap-pieces b^2, that are fastened on the ends of the slats *b* by rivets or like devices.

C designates screws arranged close to the sides of the car-body, and journaled in bearings *c*. The lowest slat *b* of the partitions or doors B are provided with nuts b^3, fitting these screws C. The other slats are provided with guides b^4, which fit the screws. The nuts b^3 and guides b^4 may advantageously be made integral with the cap-pieces b^2.

Above the screws C are ribs D, which at the lower ends are in line with the screws, and hence form continuations of the screws. They bend around and extend off at an angle close to the roof of the car-body. These ribs may be made of iron, and secured to the sides of the car-body by screws or otherwise.

The screws C may be geared together by providing their lower ends with bevel-wheels C', which engage with bevel-wheels C^2 on shafts C^3. Wrenches or keys applied to the ends of the shafts C^3 may be used to turn the screws of the several pairs in unison.

By rotating the screws in one direction the partitions will be raised and moved up close to the roof of the car-body. The partitions can be lowered by turning the screws in a reverse direction.

E designates doors for controlling ingress and egress through doorways in the sides of the car-body. These doors are substantially like the partitions or doors B, and are operated in the same way. They are composed of slats *d*, having caps d^2 fitted to their ends, and connected by strips *d'*, of steel or analogous metal. Nuts d^3 are affixed to the lowest slats *d*, and engage with screws E'. The other slats *d* have at their ends guides d^4, that embrace the screws. Guide-ribs F extend above the screws E' and across the car-body near the roof.

Preferably the screws E' of each door E will be geared together by means of bevel-wheels arranged on them and engaging with bevel-wheels upon an intermediate shaft, E^2.

The doors E may be raised up close to the roof of the car or lowered by properly rotat-

ing the screws E'. A wrench applied to the shaft E^2 may be used to accomplish this.

Instead of the peculiar construction of partitions or doors which I have described, I may use one composed of bars G, fitted close together, and connected by metal links G, fitted to journal-like portions at their ends, as shown in Figs. 4, 5, and 6. The partitions or doors thus constructed may be operated by screws in the manner already set forth.

I have filed an application for Letters Patent for an improvement in stock-cars, Serial No. 178,574, dated September 29, 1885. In that application I show partitions consisting of slats and links or longitudinally-stiff strips capable of flexure transversely, said partitions having their sides fitted to guides, and being connected at one end only to propelling mechanism. I do not herein claim anything claimed therein.

I have filed an application for Letters Patent for an improvement in stock-cars, Serial No. 181,985, dated November 6, 1885. In said application I show sliding partitions or doors and screws for operating them, said partitions or doors being composed of slats or bars and connecting strips or links for flexure, but possessing stiffness lengthwise. I do not herein lay claim to anything claimed in said application.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of sliding partitions or doors composed of slats or bars and connecting strips or links, affording provision for flexure, but possessing stiffness lengthwise, and screws engaging with nuts arranged at one end of the partitions or doors.

2. The combination of sliding partitions or doors composed of slats or bars and connecting strips or links, affording provision for flexure, but possessing stiffness lengthwise, screws engaging with nuts arranged at one end of the partitions or doors, and shafts and gears connecting the screws in pairs.

BENJ. F. HOLMES.

Witnesses:
DANIEL H. DRISCOLL,
JAS. R. BOWEN.