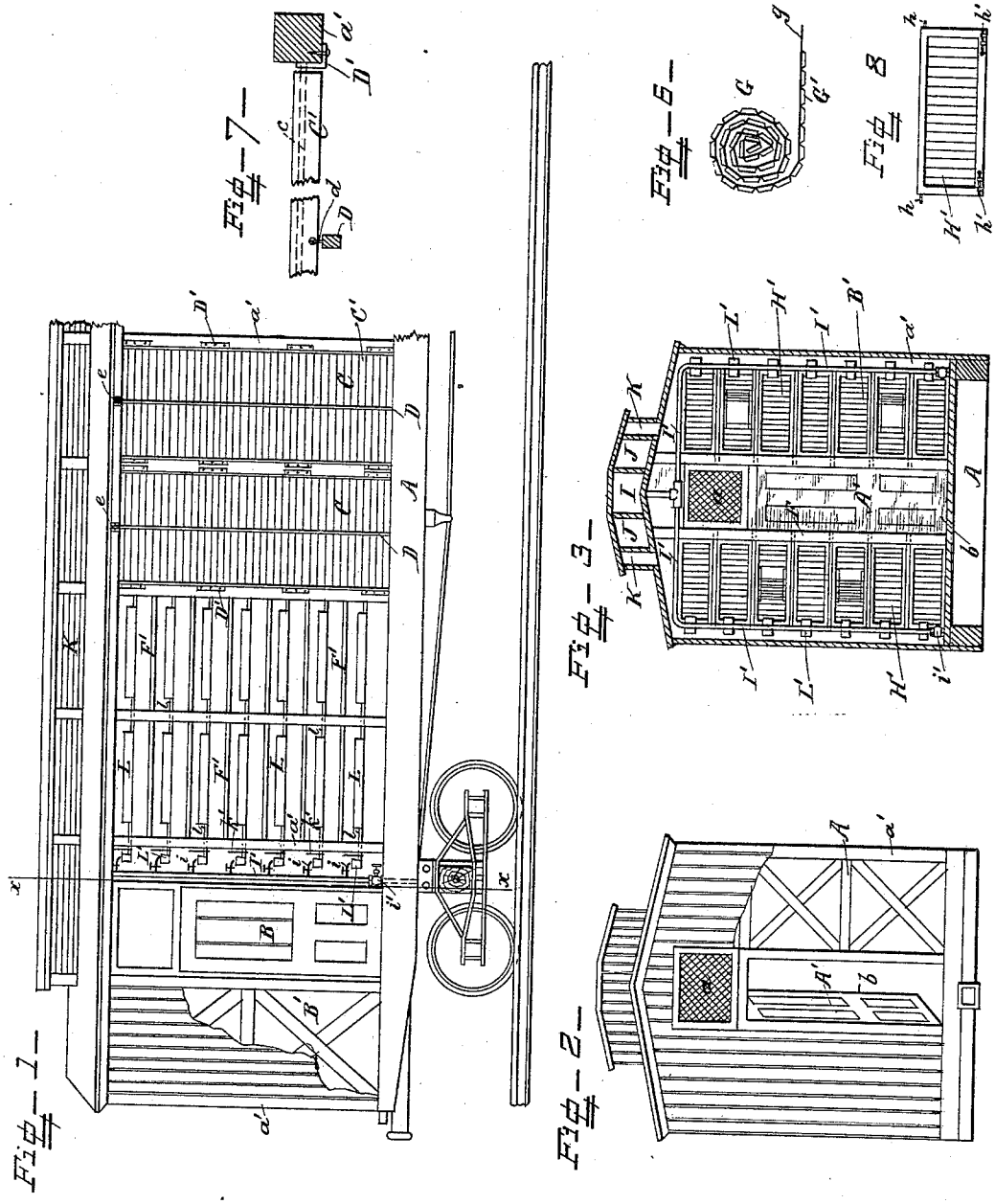
(No Model.)

2 Sheets—Sheet 1.

H. DANLEY

POULTRY CAR.

No. 431,337. Patented July 1, 1890.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

H. DANLEY.

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Fig. 5.

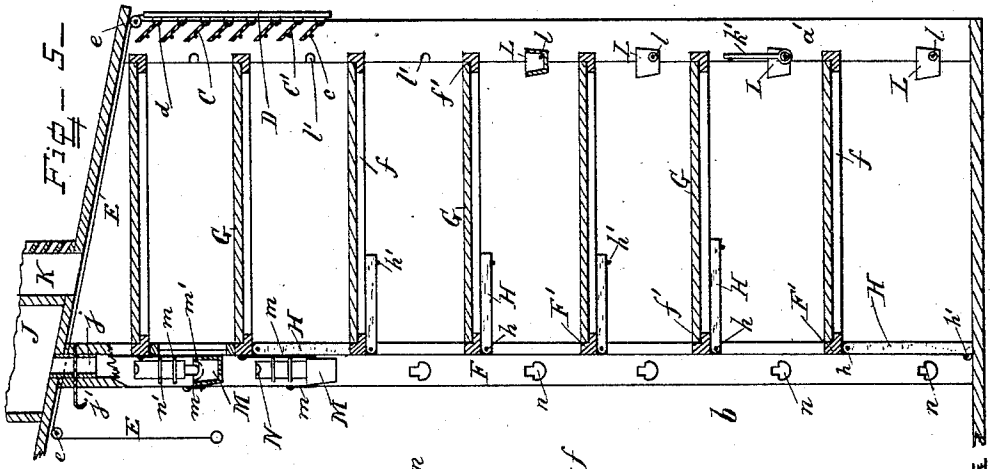
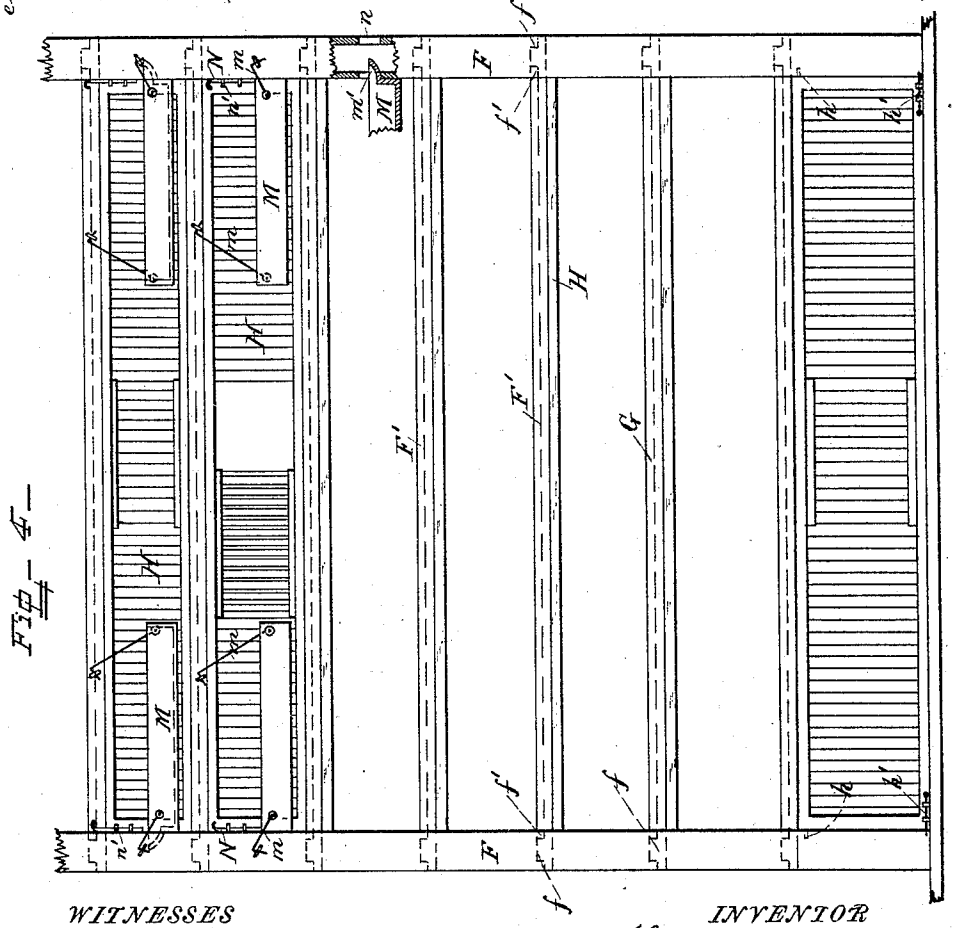


Fig. 4.



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UNITED STATES PATENT OFFICE.

HARDIN DANLEY, OF NEWTON, KANSAS.

POULTRY-CAR.

SPECIFICATION forming part of Letters Patent No. 431,337, dated July 1, 1890.

Application filed August 23, 1889. Serial No. 321,698. (No model.)

To all whom it may concern:

Be it known that I, HARDIN DANLEY, a citizen of the United States, residing at Newton, in the county of Harvey and State of Kansas, have invented certain new and useful Improvements in Poultry-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railway-cars for transporting live poultry; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of one-half of a car constructed according to this invention, with portions of its outer covering removed. Fig. 2 is an end view of the car with portions of the outer covering removed. Fig. 3 is a cross-section through the car, taken on line *x x* in Fig. 1. Fig. 4 is a front view of one tier of coops as seen from the central passage of the car, a small portion being broken away. Fig. 5 is a vertical section of one side of a car provided with my improvements. Fig. 6 is an end view of one of the removable coop-floors partially rolled up. Fig. 7 is a cross-section through one of the outside uprights of the car, showing how the ends of the shutter-slats are pivoted. Fig. 8 is a detail side view of one of the partitions which separate the coops.

A is the framing of the car, supported on wheels, and constructed like any approved form of freight-car. One-half only of the car is shown in Fig. 1, as both ends are exactly alike.

A′ is a door at each end of the car, and *a* is a ventilator over said door, so that a current of air may always pass through the car.

B are side doors near the ends of the car, for greater convenience in loading and unloading. Each door B and A′ opens into a compartment B′, which has no stationary coops. This compartment is for the use of the attendant and for the storage of anything required to be taken with the car; but any space which is left may be filled with the ordinary coops used for the transportation of poultry.

A central passage *b* extends longitudinally through the car between the end compartments B′. The coops are built up in tiers upon each side of the car, thereby forming this central passage.

The framing of the car is provided with vertical posts *a′* at the sides, and around the end compartments these posts are stiffened by cross-braces, as shown, and boarded over like an ordinary freight-car.

At the sides of the car and at the rear of the coops shutters C are provided and attached to said posts *a′*. Each shutter consists of slats C′, formed of plates of metal, and *c* are the slat pivot-bars, which are riveted to the slats near their upper edges, so that the weight of the slats keeps the shutter closed.

D is a vertical rod, which is pivotally attached to the middle of each slat by staples *d*, which pass through holes in the lower edges of the slats. The slat pivot-bars have their ends journaled in holes in the angle-brackets D′, which are secured upon the corners of the posts *a′*, so that the shutter-slats do not project beyond the line of the posts.

E are cords which are secured to the tops of rods D, and which are carried over pulleys *e* and hang down into the central passage of the car. The attendant can open the shutters by pulling the cords and then secure the ends of the cords to retain the slats from closing.

Prior to this invention poultry-cars have been provided with tiers of coops forming a central passage; but when the coops were continued to the ends of the car the car was not adapted to withstand the shocks of rapid-transit for any length of time, and it was difficult to ventilate all parts of the coops thoroughly without having a strong draft in any part of them. The compartments B at the ends of the car are very strongly cross-braced, and, together with the ordinary platform-framing A, make the car as strong as an ordinary car and as well able to withstand continued rapid-transit. The coops are not strained, because they are built over the middle portion of the frame A, between the wheels, and are not secured to the car ends, and the frame A is trussed and braced underneath them in the ordinary manner. A thorough and gentle ventilation is secured, because the air which enters through one of the end ventilators *a* as the

car travels is diffused in the compartment B and passes through the wire-work end partitions of the coops, through every part of them, and escapes through the adjustable slatted side shutters. The heated and foul air from the poultry rises to the top of the car and is discharged through the ventilators on the roof, so that it is not necessary to have the side shutters so widely open as to chill the poultry which are near to them. The peculiar construction of the slatted shutters permits them to be adjusted by the attendant from the interior of the car and while the car is in rapid motion. This has not been accomplished on any poultry-car heretofore used, and is very important, as when poultry are transported for several thousand miles they have to pass through many changes of temperature and frequently encounter storms of rain or hail. The train cannot well be stopped to permit of changes being made outside the car or for coverings to be secured over its side openings at the approach of a storm or at nightfall, and if these changes are not made many of the poultry will die and the salable value and appearance of all of them will be very considerably deteriorated before they arrive at their destination. A poultry-car thus constructed can be moved from station to station through a poultry-raising district and the poultry can be purchased and stored therein until the whole car is full and ready for transport to some distant city where there is a good demand for poultry. The fronts of the coops are supported by upright hollow posts F, which also form chutes for the feed-grain, and these chutes are spaced wider apart than the posts a', which are portions of the car-frame and therefore require to be strong.

F′ are longitudinal supports for the floors of the coops, and f are the cross-supports secured to the vertical posts a' and F, as shown, and rabbeted, as at f', all around their upper edges for the coop-floors to rest in, so that the tops of the floors are level with the tops of said supports and present no obstruction to cleaning out the coops.

G are the coop-floors, which may be formed solid or in sections. Some or all of these floors may be removable and adapted to be rolled up, as shown in Fig. 6; but preferably every alternate floor is thus made removable, so that large poultry—such as geese and turkeys—may be accommodated.

The removable floors consist of a series of slats G′, having their tops secured to a continuous web of flexible material g—such as canvas—which covers the cracks between the slats and keeps the claws of the poultry from getting wedged between the slats, and also prevents the seed from falling through them.

H are the fronts of the coops, and H′ are the ends and the partitions. All of these are similar in construction, and consist of a simple frame furnished with wire bars and provided with pivots h at the top and retractable bolts or catches h' at the bottom. The frames are made of different heights to suit the different coops, and the pivots are journaled in holes in the vertical posts; or the frames are otherwise hinged at their top edges in any convenient manner so that the coop-fronts may open inwardly. The coop-fronts are also provided with small doors for the poultry to be passed through.

The fronts and partitions may be folded up close under the floors and secured by their catches, or in any other convenient manner, when the car is not required for poultry, so that the coop-bottoms are converted into ranges of shelves, which may be used for fruits or vegetables. The partitions may also be fastened up, if desired, so that each floor is converted into one long coop, or one or more may be opened to drive the poultry from coop to coop to pack them closer, or for any other purpose.

A longitudinal structure is formed on the top of the car. This consists of a central receptacle I for water, a box J for feed-seed on each side of the water-receptacle, and ventilators K, formed outside the seed-boxes, and provided with perforated or slatted sides and communicating with the air-space in the car. The water may be stored in the receptacle I or in cylinder or other vessel inside said chamber.

I′ are water-pipes, which extend from the end of the receptacle I down each side of the car and pass through the bottom of it. Drain-cocks i' are provided near the floor of the car, so that all the water may be run off, if desired, and i are faucets connected to the pipes I′ for supplying the various water-troughs in the coops.

L are the water-troughs, which are connected in line by the pipes l, which are journaled in grooves l' in the inner sides of the posts a'.

L′ is a small end trough under each faucet, and k' are handles secured upon the pipes l, so that the troughs may be turned over to throw out the surplus drinking-water when it becomes foul.

The boxes J for the seed communicate with the hollow posts or chutes F through the nozzles j, which are provided with slides j' for shutting off the supply when desired.

M are the seed-troughs, which are removably attached to the outside of the coops by the hooks m, and are provided with spouts m', which project within the holes n in the sides of the said chutes F.

N are slides for covering the holes n, and which work in the guides n', so that the amount of the opening may be adjusted and more or less seed permitted to run out into the troughs.

The seed-troughs do not interfere with the opening of the coop-fronts, and may be taken down altogether when not required.

What I claim is—

1. In a poultry-car, the combination, with a

tier of coops, of hollow posts supporting the said coops and forming passages for supplying seed to the birds in said coops, substantially as set forth.

2. In a poultry-car, the combination, with a tier of coops, of hollow posts provided with side openings supporting the said coops and forming passages for the supply of seed, the seed-troughs communicating with said openings in the posts, and the hooks pivoted to the troughs and adapted to support them in front of the coops and press them endwise against the said posts, substantially as shown and described.

3. In a poultry-car, the combination, with the coops built up in tiers, of removable bottoms for separating the vertically-adjacent coops in the tiers, and consisting of a series of slats having their tops secured to a continuous web of flexible material, whereby the coops may be made higher to accommodate large fowls, the removed bottoms being rolled up and carried on the car, substantially as set forth.

4. In a poultry-car, the combination, with the vertical supporting-posts, of the coop-bottoms supported by said posts, and the coop-fronts and partitions pivoted at their upper edges and provided with retaining-catches at their lower edges and adapted to fold up under said bottoms, whereby said coops may be converted into shelves, substantially as set forth.

5. In a poultry-car, the combination, with the water-receptacle above the level of the coops, of the drinking-troughs inside the coops, coupled together by their supply-pipes, and provided with small troughs outside the coops, one to each line of drinking-troughs, and a pipe connected to said receptacle and provided with faucets projecting over the said small troughs, substantially as set forth.

6. In a poultry-car, the combination, with the water-receptacle above the level of the coops, of a line of drinking-troughs inside the coops, coupled together and pivoted to the car-frame by their supply-pipes, a small trough on the end supply-pipe outside the end coop, a handle secured to said pipe for turning over and emptying the troughs, and a stationary water-supply faucet projecting over the said small trough, substantially as set forth.

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

HARDIN DANLEY.

Witnesses:
T. P. RAGSDALE,
JOS. MCNEEL.