No. 617,623. Patented Jan. 10, 1899.

J. P. YOUNG.

PORTABLE HORSE STALL FOR RAILWAY CARS.

(Application filed Apr. 16, 1898.)

(No Model.) 3 Sheets—Sheet 1.

Fig. 1,

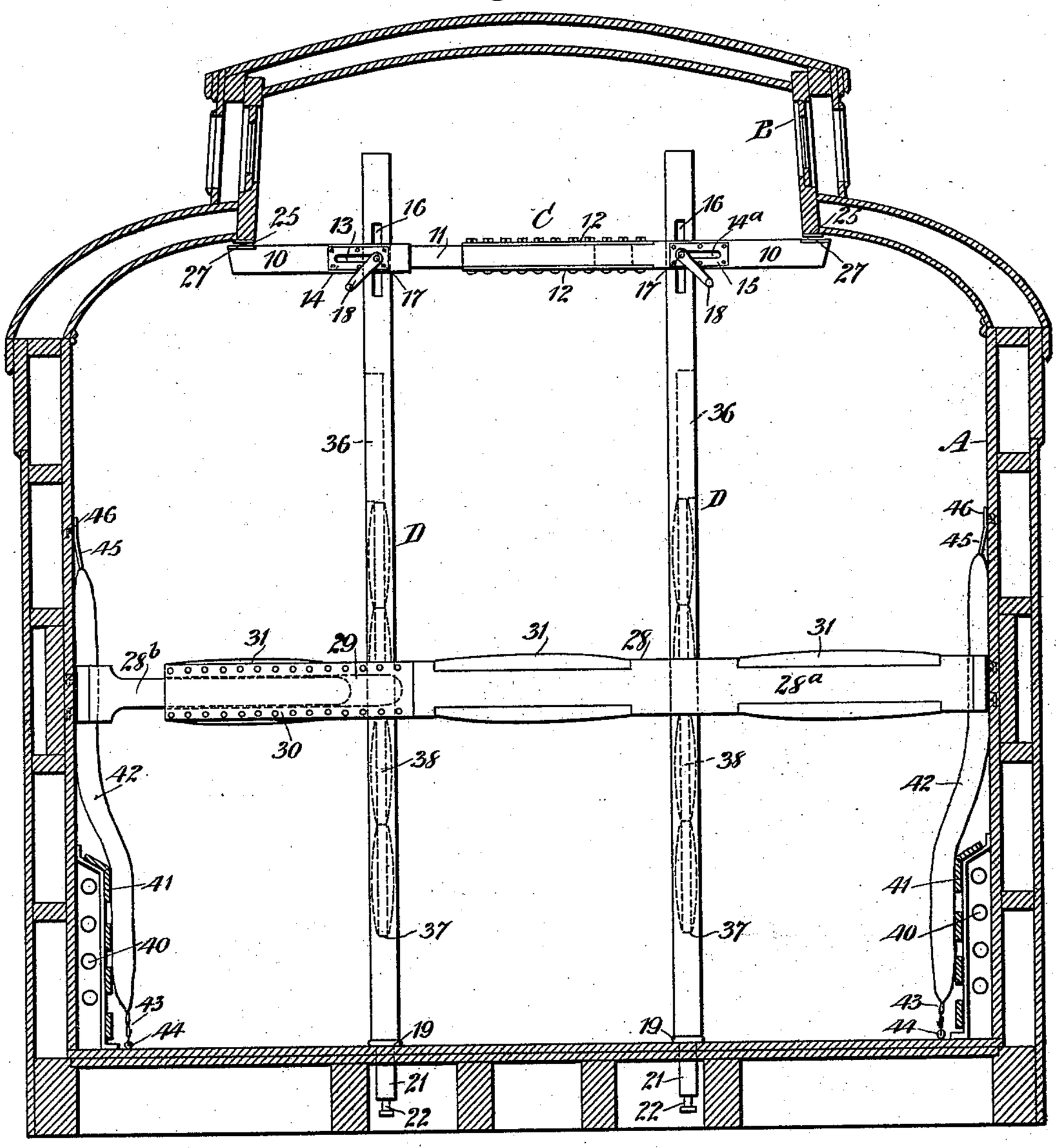


Fig. 10,

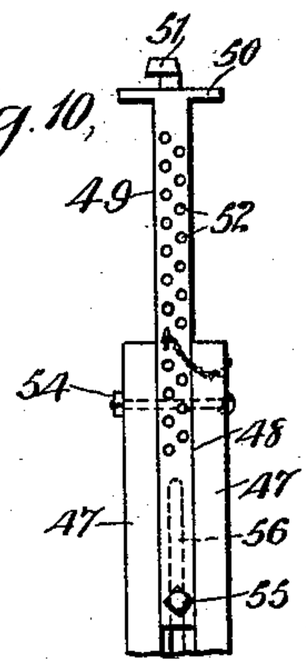
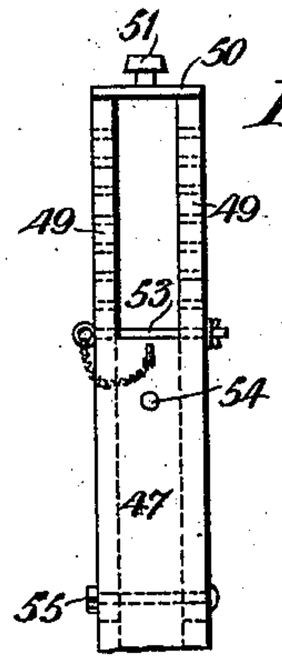


Fig. 11.



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(No Model.) 3 Sheets—Sheet 2.

Fig. 2,

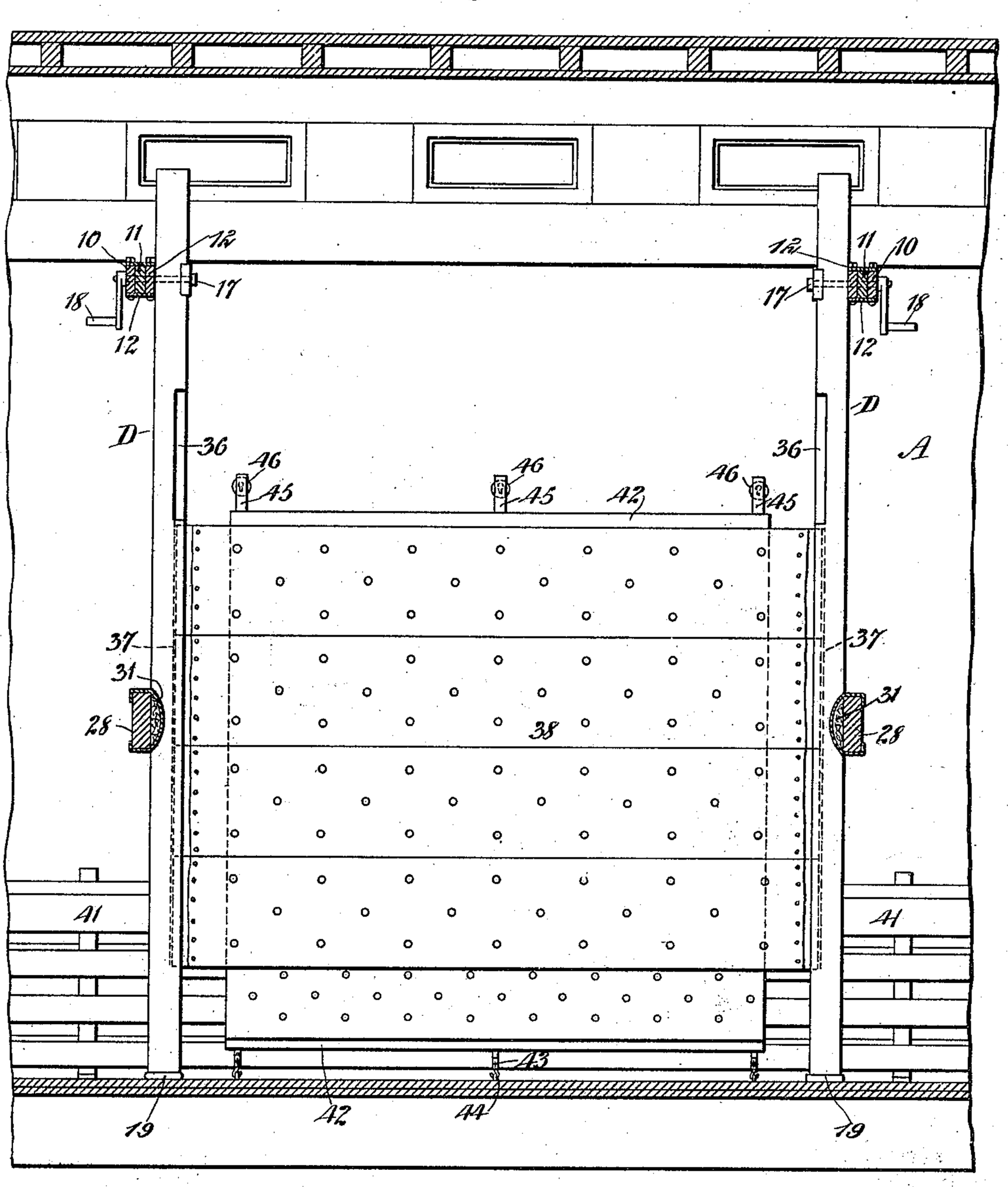
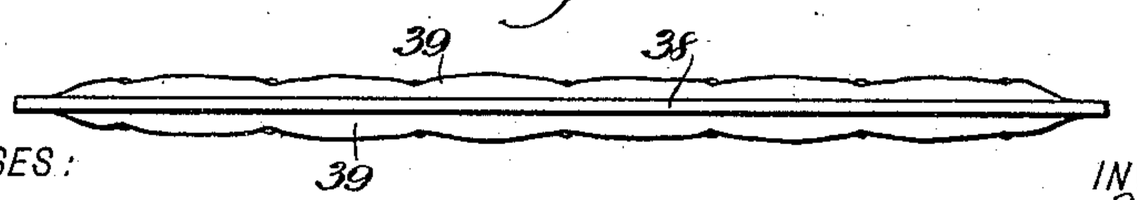


Fig. 3,



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(No Model.) 3 Sheets—Sheet 3.

Fig. 4,

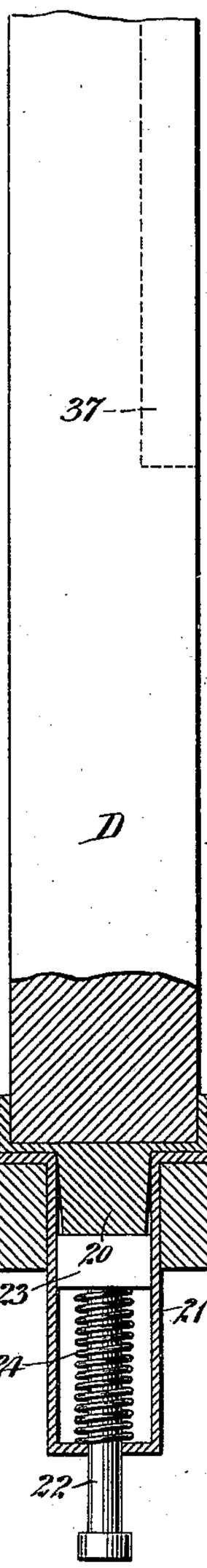


Fig. 5,

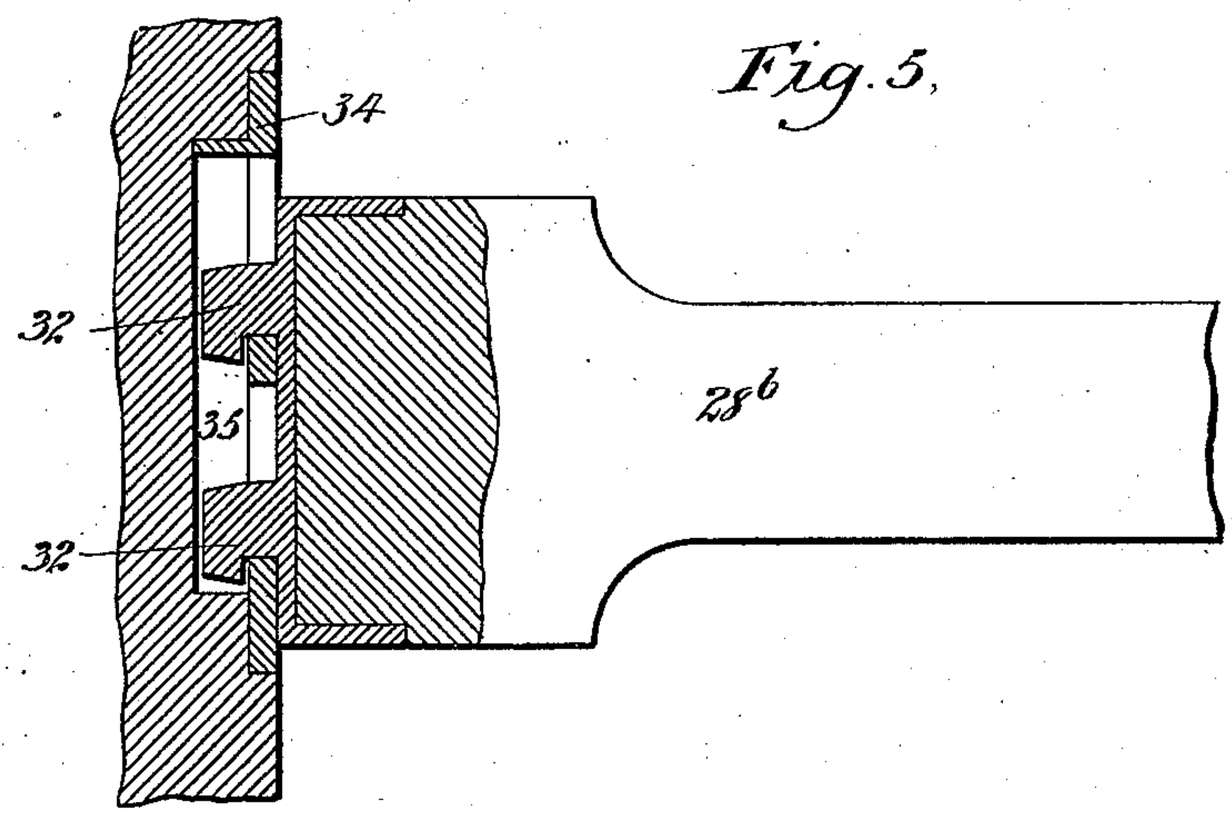


Fig. 6,

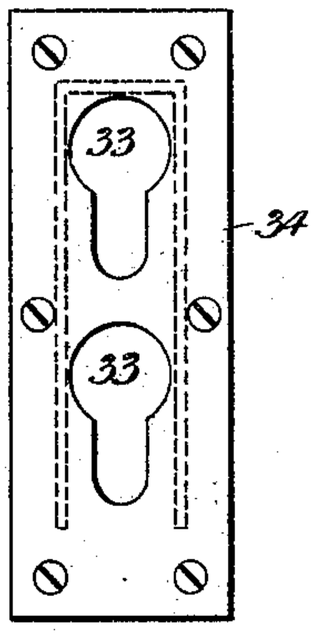


Fig. 7,

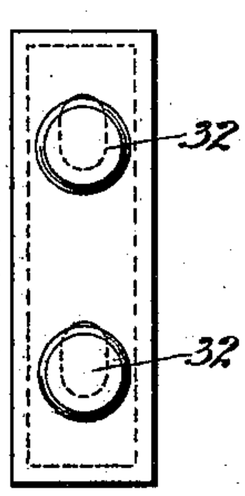


Fig. 8,

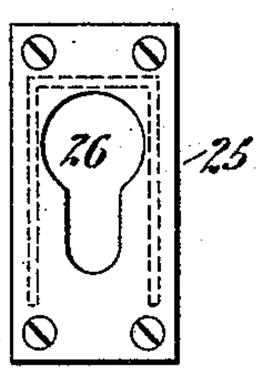
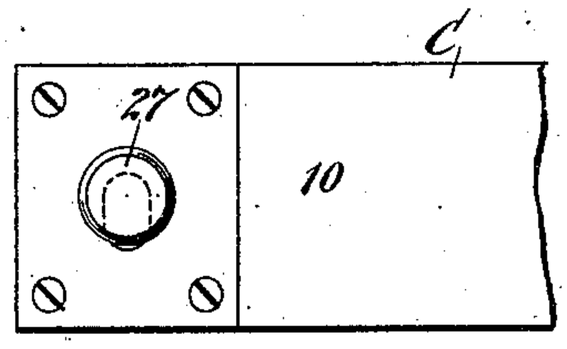


Fig. 9.



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UNITED STATES PATENT OFFICE.

JOHN P. YOUNG, OF NEW HAVEN, CONNECTICUT.

PORTABLE HORSE-STALL FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 617,623, dated January 10, 1899.

Application filed April 16, 1898. Serial No. 677,813. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. YOUNG, of New Haven, in the county of New Haven and State of Connecticut, have invented new and Improved Portable Horse-Stalls for Railway-Cars, of which the following is a full, clear, and exact description.

The object of my invention is to provide a construction whereby a baggage-car may be quickly and effectively converted into a palace box-stall car and whereby the stalls may be as quickly and conveniently disconnected from a car, leaving the interior of the car unmarred and without any protuberances.

A further object of the invention is to provide a means whereby a baggage-car or a car of like character may be converted into a horse-stall car without in any manner marring the interior finish of the car and without danger of causing the animals to contact with the steam heating-pipes.

The invention consists in the novel construction and combination of the several parts, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical transverse section through a car having the improved fixtures applied thereto. Fig. 2 is a longitudinal vertical section through the central portion of the car and through one of the stalls provided by the fixtures. Fig. 3 is a plan view of one of the padded division-boards adapted to be placed between the stalls. Fig. 4 is an enlarged partial side elevation and partial sectional view of one of the stanchions and a partial vertical section through the flooring of a car and a spring-socket adapted to receive the lower end of the stanchion. Fig. 5 is a partial side elevation and partial sectional view of one end of a cross-bar for the stalls and a vertical section through the socket in the wall of the car adapted to receive the end of the cross-bar. Fig. 6 is a plan view of the socket-plate, shown applied in Fig. 5 to the wall of the car. Fig. 7 is an end view of the cross-bar, also shown in Fig. 5. Fig. 8 is a plan view of a socket-plate adapted for attachment to the deck-sill of a car; and Fig. 9 is a plan view of one end of an upper cross-bar, illustrating the locking device adapted to enter the socket-plate shown in Fig. 8. Fig. 10 is a front elevation of a modified form of stanchion, and Fig. 11 is a side elevation of the same.

In the drawings I have illustrated a set or series of transversely-arranged stalls applied to a car.

A represents a baggage-car, B the clearstory thereof, and C represents one of two upper cross-bars adapted for attachment to the deck-sills of the car, the said cross-bars extending from one side of the clearstory to the other. Each cross-bar C is constructed in two sections, a body-section 10 and an extension-section 11, the body-section, as shown in Fig. 2, being provided at one end with a longitudinal slot, into which an end of the extension-section 11 is loosely entered, the body-section at its slotted portion being strengthened by top and bottom plates 12. The extension-section 11 is provided with a longitudinal slot 13, extending through from side to side, and slotted face-plates 14 at each end of the slot 13, while the body-section 10 is provided with a longitudinal slot 14^a, extending through from side to side, and slotted face-plates 15, as shown in Fig. 1.

Preferably two stanchions D cross each of the cross-bars C at their slotted portions, the upper ends of the stanchions being provided with longitudinal slots 16, and bolts 17 are passed through the slots in the members of the cross-bars C and the slots 16 in the stanchions, the bolts being provided with lock-nuts 18, which are preferably in the form of cranks, so that they may be expeditiously applied. Under this construction it is obvious that the cross-bars C and the stanchions may be adjusted to cars of different widths and of different heights. The lower end of each stanchion is provided with a ferrule 19, and the said ferrule is provided with a block 20, preferably a tapering block, as shown in Fig. 4. The block 20 of each ferrule is made to enter a socket-casing 21 fitted in the flooring of the car. A plunger 22 is mounted to slide in each socket-casing 21, and each plunger is provided with a head 23, and a spring 24 is coiled around each plunger 22, bearing against the bottom of the socket-casing containing the plunger and against the under surface of the plunger-head. When a stanchion is in position in a socket-casing, the spring-plunger is forced downward, as shown in Fig. 4, thus

holding the stanchion firmly in position; but when the stanchions are removed the plunger-heads are carried by their springs flush with the upper surface of the floor, so that no dirt can enter the socket-casing to interfere with the application of the stall-fixtures.

The upper cross-bars C are held in position preferably by forming recesses in the under faces of the deck-sills of the car and covering the recesses with plates 25, having keyhole-slots 26 made therein. At each extremity of each upper cross-bar C a button or a latch 27 is provided, the head whereof is eccentric on the shank, and the said heads are made to enter the larger portions of the keyhole-slots 26, the shanks being carried into the contracted portions of the slots.

The upper cross-bars C are prevented from leaving their sockets in the deck-sills by intermediate cross-bars 28, which extend from side to side of the car, crossing the stanchions D. These intermediate cross-bars are made in two sections 28^a and 28^b, the section 28^a being provided with a slot 29 to receive the section 28^b, and the slot is covered by a suitable plate 30, as shown in Fig. 1. The inner faces of the cross-bars 28 or the surfaces that face the stalls are provided with suitable pads 31.

At each end of each intermediate cross-bar 28 an end plate is secured, provided with two buttons or latches 32, having eccentric heads similar to the buttons 27, and, as illustrated in Fig. 5, the buttons or latches 32 on the intermediate cross-bars are adapted to enter keyhole-slots 33 made in plates 34, which are introduced into the side walls of the car over suitable recesses 35. As illustrated in Fig. 2, in one side of each stanchion D, near its upper end, a recess 36 is made, and these recesses communicate with longitudinal grooves 37 made in the inner faces of the stanchions. These grooves are adapted to receive partition-boards 38, (shown in detail in Fig. 3,) the ends of the partition-boards being first introduced into the recesses 36 and then made to enter the grooves 37. The partition-boards are provided upon both sides with upholstery 39 or padding of any description.

The steam-pipes 40 in the car are incased by removable housings 41, and in the side stalls the side faces of the car are covered by pads 42, which likewise cover the housings 41. Chains 43 are attached to the lower edges of these pads, connected by snap-hooks or their equivalents with rings or screw-eyes 44 in the floor of the car. Straps 45 are secured to the upper ends of these pads, and each strap is provided with a button 46, having an eccentric head, being preferably of the same shape as the buttons 32 and 27, heretofore alluded to, and the buttons 46 enter suitable keyhole-slots made in plates fitted in the side walls of the car. Under such a construction it will be observed that the fixtures may be quickly set up and quickly removed, and when removed the interior of a baggage-car will remain the same as before the fixtures were applied.

It frequently happens that it is necessary to carry the stanchions to the extreme top of the car, in which event the stanchions may be advantageously constructed, as illustrated in Figs. 10 and 11, in which it will be observed that the stanchions are telescopic, comprising a body member 47, having grooves 48 in opposite sides, and an upper section 49, comprising two side pieces connected by a top piece 50, the side pieces being held to move in the aforesaid grooves 48. A locking-button 51 of the character heretofore described is located upon the top cross-piece 50, and apertures 52 are made in the side pieces of the upper section, whereby the upper section may be held in adjusted position by passing bolts 53 through suitable apertures 52 and across the top of the main section of a stanchion. The body portion 47 of the stanchions (shown in Figs. 10 and 11) is braced by a suitable screw-bolt 54, and the lower ends of the upper sections of the stanchion are braced by a bolt 55, passed through them and through slots 56 made in the body portions of the stanchions.

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

1. In stall-fixtures for cars, cross-bars formed of sections adjustably secured together and arranged for locking connection with the car, stanchions detachably secured to the cross-bars and each provided with a vertical groove and a recess at the top of the groove, and partition-boards movably held in the grooves of the stanchions, substantially as described.

2. In a stall-fixture for cars, upper cross-bars formed of sections and arranged for locking connection with the deck-sills of the car, stanchions having their lower ends fitting in sockets in the floor of the car and their upper ends adjustably secured to the said cross-bar, said stanchions being provided with vertical slideways, partition-boards held in said slideways, and intermediate cross-bars formed of sections and arranged for locking connection with the sides of the car, said intermediate cross-bars crossing the stanchions and serving to hold the upper cross-bars in locked position, substantially as described.

3. In a stall-fixture for cars, upper and lower adjustable cross-bars provided with means for locking engagement with the car, stanchions adjustably connected with the said cross-bars, sockets arranged to receive the lower ends of the stanchions and having spring-pressed plungers, the said stanchions being provided with slideways, and partitions mounted in the slideways of the stanchions, substantially as shown and described.

4. The combination, with a car provided with sockets in the flooring thereof said sock-

ets containing spring-pressed plungers, and pads removably attached to the sides of the car, of stall-fixtures consisting of adjustable cross-bars arranged for locking engagement with the upper portion of the car, stanchions entering the said sockets and adjustably connected with the upper cross-bars, adjustable intermediate cross-bars engaging with the stanchions and having locking engagement with the sides of the car, and partitions removably carried by the said stanchions, for the purpose specified.

5. The combination, with a car having side plates carrying recesses, the said side plates being provided with one or more keyhole-slots, and pads removably located at the sides of the car, being secured to the floor and provided at their upper ends with studs adapted to enter sundry of the said keyhole-plates in the sides of the car, of adjustable cross-bars provided with studs at their ends, plates provided with keyhole-slots located at the upper portion of the car, receiving the said studs, stanchions adjustably connected with the said cross-bars, intermediate cross-bars having bearing against the stanchions, the said intermediate cross-bars being adjustable and provided with studs adapted to enter sundry of the keyhole-slots in the side plates of the car, and partitions removably mounted in the said stanchions, for the purpose set forth.

6. In a stall-fixture, the combination of a cross-bar formed of sections adjustably secured together, each section being provided with a longitudinal slot, stanchions having longitudinal slots at their upper ends, and bolts passing through the slots of the cross-bar and stanchion, substantially as described.

7. In a stall-fixture, the combination with a stanchion having a tenon at its end, of a socket adapted to receive the tenon, and a spring-pressed plunger in the socket, substantially as and for the purpose set forth.

8. In a stall-fixture, for cars, the combination with a car provided with keyhole-slots in the under face of the deck-sills and with keyhole-slots on its sides and sockets in the floor, of an upper cross-bar formed of two sections and provided with heads fitting in the keyhole-slots of the deck-sills, stanchions having their lower ends fitting in sockets in the floor and their upper ends adjustably secured to the cross-bar, and an intermediate cross-bar formed of two sections and provided with latches having heads fitting in the keyhole-slots of the sides of the car, said intermediate cross-bar crossing the stanchions, substantially as described.

JOHN P. YOUNG.

Witnesses:
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JOHN P. STUDLEY.