

No. 882,163.

PATENTED MAR. 17, 1908.

G. F. PETTIT.

VESTIBULE STOCK CAR.

APPLICATION FILED MAY 20, 1907.

2 SHEETS—SHEET 1.

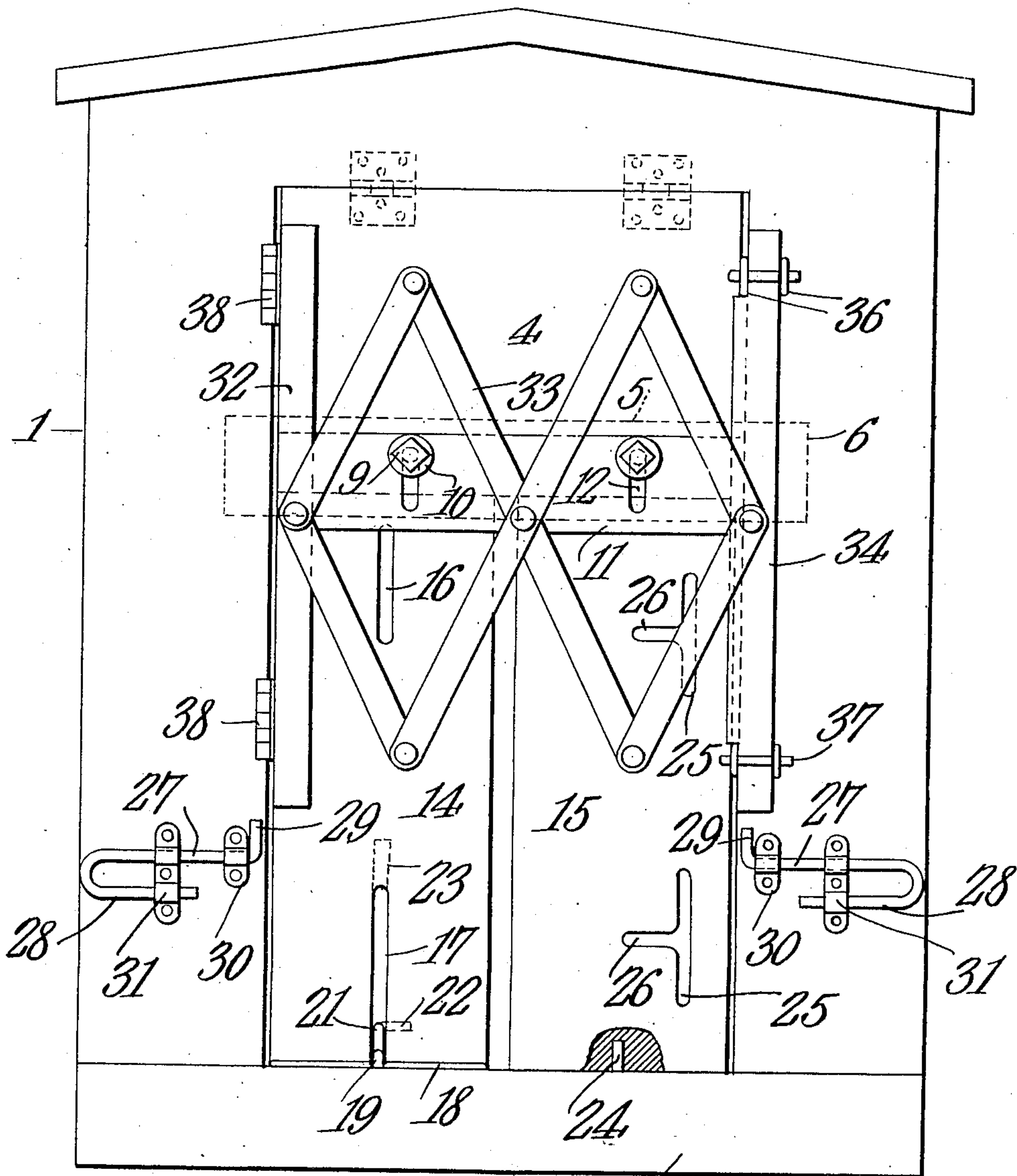


Fig. 1.

13

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INVENTOR.

WITNESSES:

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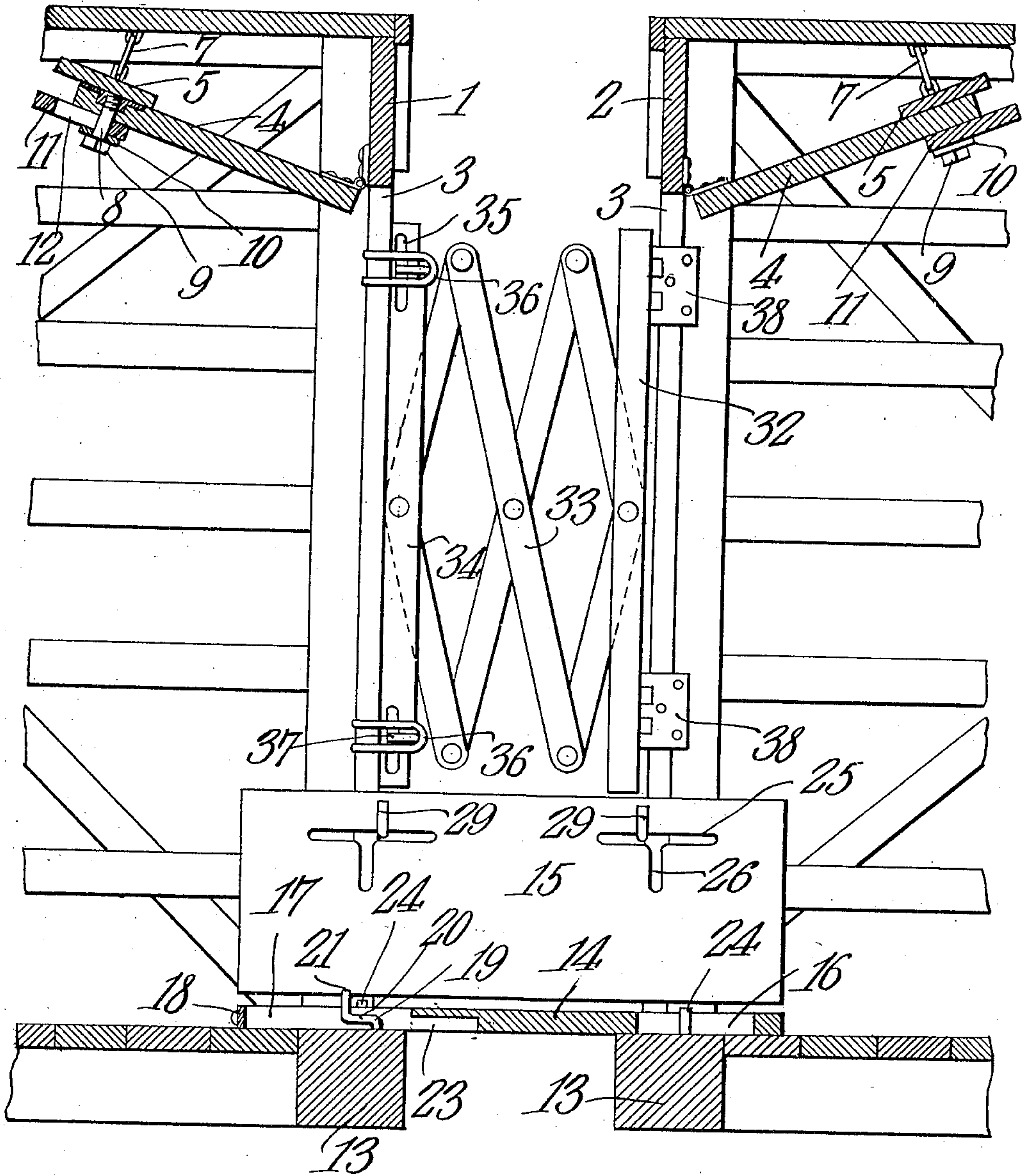


Fig. 2.

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# UNITED STATES PATENT OFFICE.

GEORGE F. PETTIT, OF SPRINGFIELD, ILLINOIS.

## VESTIBULE STOCK-CAR.

No. 882,163.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed May 20, 1907. Serial No. 374,700.

*To all whom it may concern:*

Be it known that I, GEORGE F. PETTIT, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Vestibule Stock-Car, of which the following is a specification.

This invention relates to improvements in vestibule stock cars, and its object is to provide means whereby animals may be loaded from one car into another without the necessity of first removing them through the side of the car and then transferring them through the side of the car into which they are to be loaded. Also, the improved vestibule renders it possible to load animals into one particular car of a train and to drive them from car to car until the desired car is reached.

The invention consists essentially of a composite door at the end of a car having a gangway element which may be let down to bridge the distance between the ends of two contiguous cars, and another element which may be removed from the doorway and from the side guard to the gangway, while extensible guards are provided for adding to the height of the gangway guard, thus rendering the device applicable for large or small animals.

The invention comprises means whereby the several parts all coact to form closures for the ends of the cars, and such closures are so constructed as to operate in pairs, that is, the closure at the end of one car coacts with the closure at the contiguous end of the next car so that each closure constitutes but one-half of the complete gangway from car to car, and both are necessary for the purpose.

The invention will be fully understood from the following detailed description taken in connection with the accompanying drawings forming part of this specification, in which,—

Figure 1 is an end view of a car showing the combined closure and gangway, with parts shown in section; and Fig. 2 is a longitudinal section through two coupled cars, showing the gangway in position.

Referring to the drawings, there are shown two cattle cars 1—2, which may be of ordinary construction, and, therefore, need not be here described in detail. Such cars are provided with closed ends through which are formed passageways 3 extending from the

floor of the cars upward for a distance sufficient to permit the passage of the largest animals the cars are designed to carry.

Hinged to the end of a car contiguous to the upper edge of the opening 3 is a flap door 4 which, when closed down into the opening, occupies somewhat less than half of the height thereof. The back of this door, that is, that portion which faces the inside of the car body, is provided with an edge strip 5 projecting beyond the lower edge of the door and also beyond the sides thereof, as indicated at 6 in Fig. 1. This strip prevents the door from being moved through the opening toward the outside of the end of the car but does not interfere with the door being moved about its hinges until the free end is moved upward toward the roof of the car where it may be caught and held by a hook 7 or any other suitable hanger. Extending through the door 4 near the free end are bolts 8 having heads 9 beneath which are provided washers 10, and beneath these washers on the corresponding face of the door, which is the outside face thereof, is another strip 11 having a lateral slot 12 for the passage of the bolts 8, but too narrow for the washers or heads of the bolts to pass. This strip 11 is as long as the door is wide and is capable of being moved so that its outer edge is beyond the free edge of the door or is brought contiguous with or above the same. The space between the lower edge of the door and the sill of the car, which sill is indicated at 13, is approximately filled by two planks 14—15, which structure, however, may be made of metal if desired. The plank 14 is provided near one end with a longitudinal slot 16 and near the other end with another longitudinal slot 17. The slot 16 does not extend quite to the corresponding end of the plank, but the slot 17 extends quite to the end thereof and is closed by an end plate 18. Engaging the slot 17 is a pin 19 rising from the sill 13 and then bent parallel therewith, as shown at 20, after which it rises directly upward above the sill, as shown at 21, and terminates in a side extension 22. This pin 19 coacts with the slot 17 and end plate 18 to hold the plank 14 against movement lengthwise of the car when this plank is in an upright position and its upper end engaged between the strips 5 and 11. This pin 19 also provides a hinge about which the plank 14 will be turned until in a horizontal position,



when it is held from rising above the sill by the side extension 22 of the pin which engages over the plank adjacent to the slot 17, but longitudinal movement of the plank on the pin through the extent of the length of the slot 19 is permitted, while a recess 23 is provided in the plank 14 in line with the slot 17 to receive the horizontal portion 20 of the pin 19. The slot 16 is arranged to receive a pin 24 rising from the corresponding sill 13 of the contiguous end of the next adjacent car. The plank 14 is always arranged on the same side of the car, and, consequently, when two cars are brought together and the planks are brought into horizontal position they will lie side by side and form a gangway as wide as the openings in the ends of the cars, while the slots 16 and 17 and the pins with which they engage will permit such relative longitudinal movement of the planks and the cars as is necessary for the accommodation of the planks to the varying distances between the cars. At the same time the space between the cars is effectually covered by these planks. The plank 15 has a socket formed in its lower end to normally engage the pin 24, and the upper end of the plank 15 is held between the strips 5 and 11 on the door 4. Thus the two planks 14 and 15, together with the door 4, effectually close the end of the car. Each plank 15 is provided near one side with two longitudinal slots 25—25, each provided with a central lateral extension 26, the said slots being thus T-shaped in outline.

On the outer face of the car end adjacent the side of the opening 3 is a slide 27 having a return section 28 and an angle extension 29 projecting upward. This slide is held flat against the end of the car by brackets 30 and 31 so that the end 29 will always be held in an upright position but at the same time the slide may be moved across the end of the car to a sufficient distance to project the turned-up end 29 for a short space into the line of the opening 3. Now, when the plank 15 is removed from the opening 3 the slot extensions 26 will receive the upturned ends 29 of the slides 27 when the latter are projected toward the opening 3 and the planks 15 may be then permitted to drop by gravity until the main portions of the slides 27 are in the slots 25 with the extensions 29 extending upward therefrom. When so located the planks 15 have their lower edges resting on the planks 14 and thereby constitute the sides of the gangway up to a height agreeable with the width of the planks 15. Relative longitudinal movement of these planks 15 with relation to the car ends is provided by the slots 25, while the upturned ends 29 of the slides 27 prevent these planks 15 from moving to any material distance in a lateral direction. The slides operate as supports or hangers for the planks 15 and when the lat-

ter are removed the slides may be pushed laterally outward until their ends 29 are out of the line of the opening 3.

Hinged to one side of each opening 3 is an upright bar 32 to which is pivoted one end of a link structure 33 of the lazy-tong pattern, carrying at its free end another upright strip 34. This latter strip is provided with longitudinal slots 35 and is arranged to rest between two spaced staples or ears 36 at each end. These ears 36 being at the side of the opening 3 opposite that to which the strip 32 is hinged, a pin or link 37 passing through the ears 36, serves to hold the strip 34 when seated between these ears.

The extensible gate 33 normally rests across the base of the door and the blanks 14 and 15 with the strip 34 fast between the ears 36. But when the gangway made of the planks 14 is in position and the other planks 15 are arranged to form the sides thereof, the gates 33 are unfastened from between the ears 36 and the strip 32, which is secured by hinges 38 to the corresponding side of the opening, is turned on its hinges so that the strip 34 may engage between the corresponding ears 36 on the next adjacent car and be there secured by the pins 37. The gates 33 are extensible or contractile to accommodate themselves to the varying distances between the ends of the cars, and they also serve as side guards for the gangway, making these sides of sufficient height to confine as large animals as are liable to pass over the gangway.

It will be seen that by this structure each car is provided with one-half of a gangway so that when the contiguous ends of two cars are brought into juxtaposition the several parts are all utilized in the structure of the gangway with the exception of the doors 4, which are simply elevated out of the way without being removed from the structure. Also, when the parts are replaced the gangway sections all fit in respective positions to constitute a portion of the closure for the end of the particular car to which they belong.

I claim:—

1. A vestibule stock car provided with an end opening and a closure therefor comprising a gangway section hinged to the car and movable in a vertical plane and another removable section adapted to constitute one side of the gangway.

2. In a vestibule stock-car, a gangway section hinged to the car end and movable through a vertical plane and having slidable connections with the bottom of the car in the direction of the length of the car.

3. In a vestibule stock car, an end therefor provided with a through passage or opening, a gangway section, a hinge connection between the same and the bottom of the car said section being movable through a vertical plane and provided with a slot coacting with



the hinge to form a slidable connection with the car in the direction of the length of the latter, and another slot at the other end arranged to engage suitable holding means in the next adjacent car.

4. In a vestibule stock car, a gangway section a hinge connection between the same and the car, said section being movable through a vertical plane around the hinge and slidable thereon, another section having longitudinal slots, and hangers on the side of the car arranged to enter the slots in the last-named section to hold the latter in position to operate as sides for the gangway.

5. In a vestibule stock car, an end thereof having a through opening, a gangway section hinged to move in a vertical plane into said opening or to a horizontal position to constitute part of a gangway and slidable longitudinally with relation to the car, another or guard section arranged to coact with the gangway section to form in part a closure for the end of the car, a hinged door coacting with both sections to complete the closure of the end of the car, and a sliding lock member for holding the sections within the opening in the end of the car and carried by the door.

6. In a vestibule stock car, an end provided with a through opening, a gangway section hinged to the car and arranged to move to a horizontal position and also slid-

ably connected with the car, a guard section having longitudinal slots and coacting with the gangway section, and a sliding hanger movable into and out of the line of the opening and coacting with one of the slots in the guard section to sustain and lock the same in position, but permitting longitudinal movement thereof in relation to the car.

7. A vestibule stock car provided with an end opening, a gangway section hinged to the bottom of the car and arranged to partially fill said opening, a guard section adapted to coact with the gangway section to form a portion of the closure for the end of the car, a door hinged to the top of the opening and coacting with the gangway and the guard sections to complete the closure for the opening through the end of the car, a locking element for the gangway and guard sections carried by the door, an extensible gate section hinged to one side of the opening, and means for locking the other end of the extensible gate to the other side of the opening in the end of the car.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE F. PETTIT.

Witnesses:

A. F. HUGHES,

BESSIE BRADDOCK.