

No. 709,486.

Patented Sept. 23, 1902.

L. A. HOERR.
GRAIN DOOR FOR CARS.
(Application filed Aug. 29, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

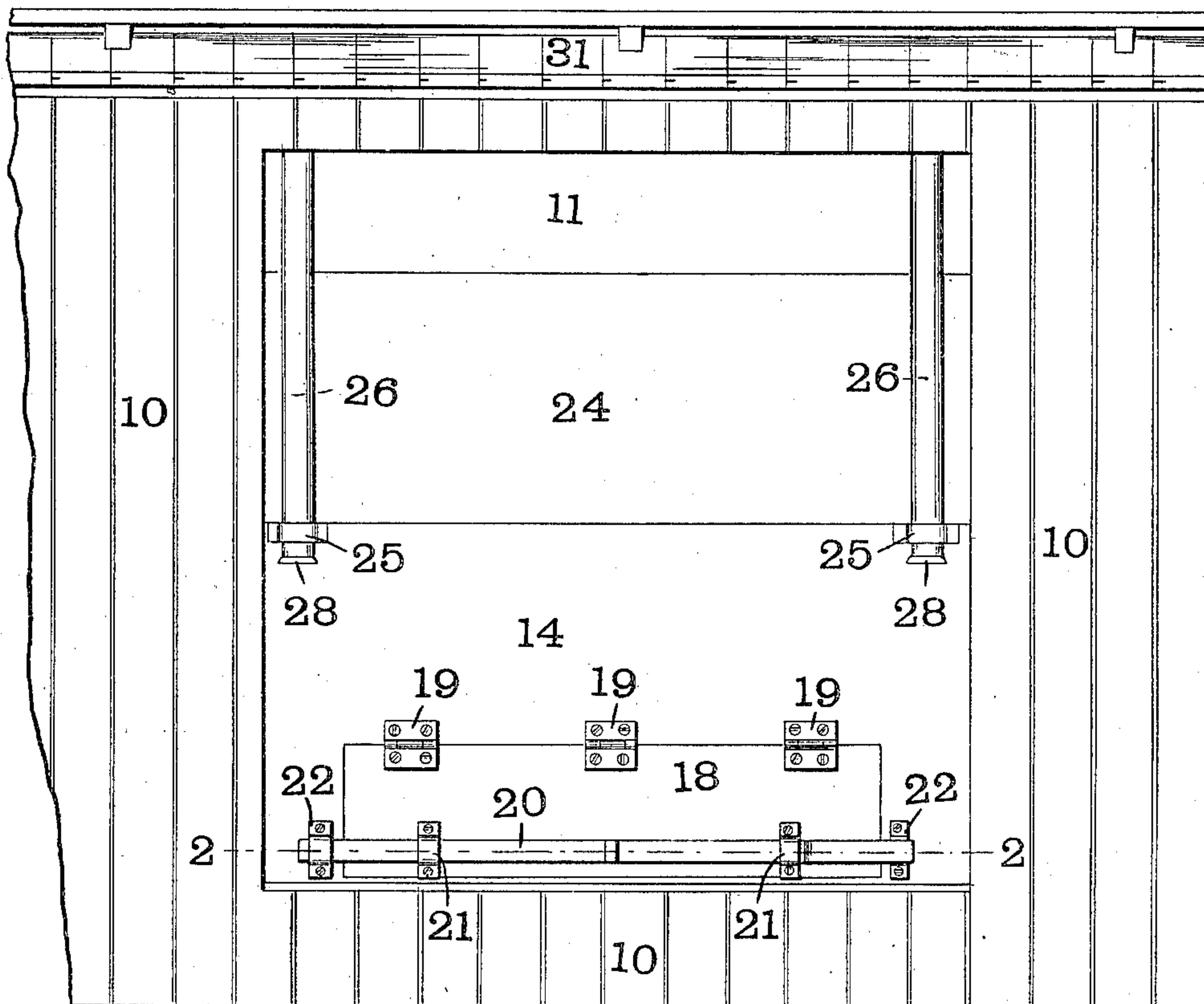
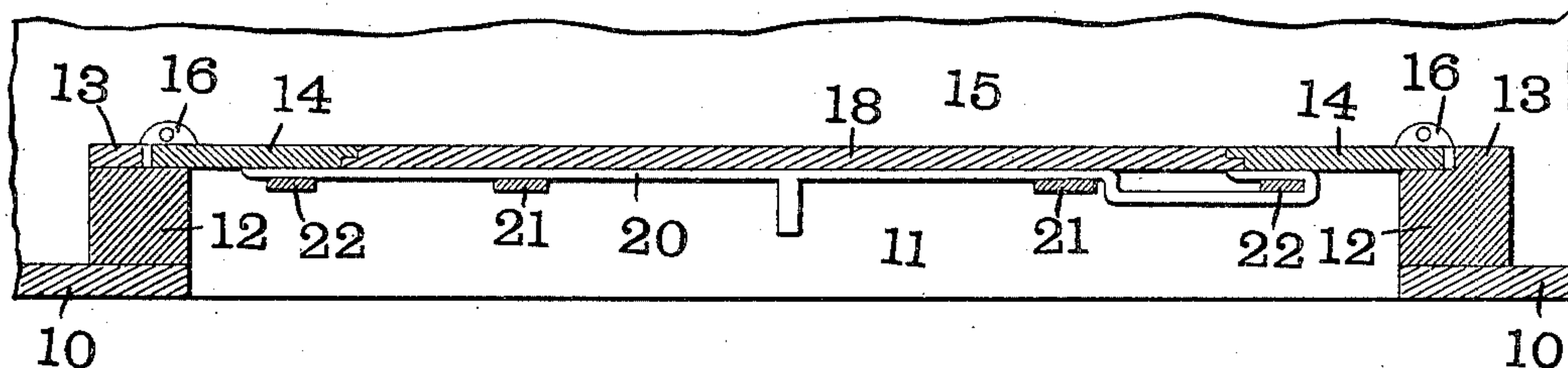


Fig. 2.



Witnesses

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Fig. 3.

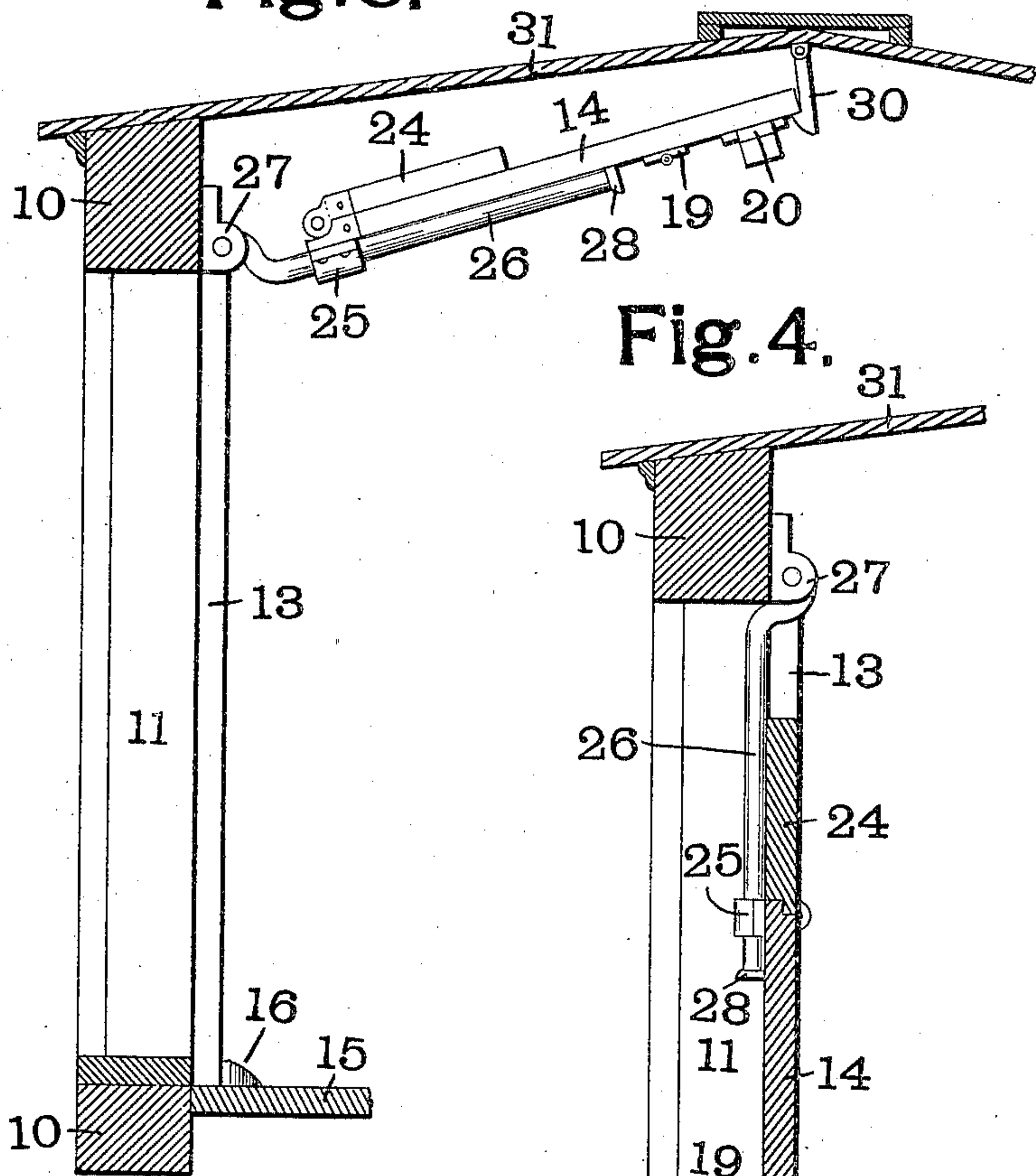


Fig. 4.

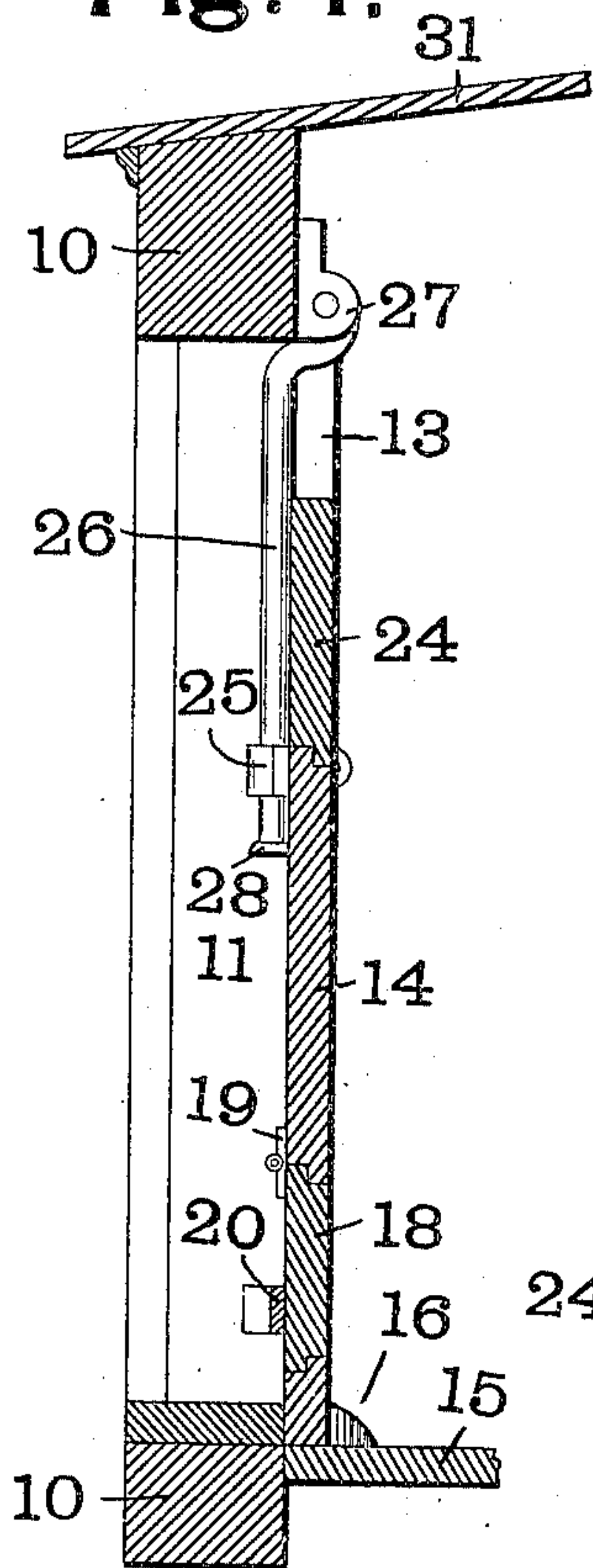
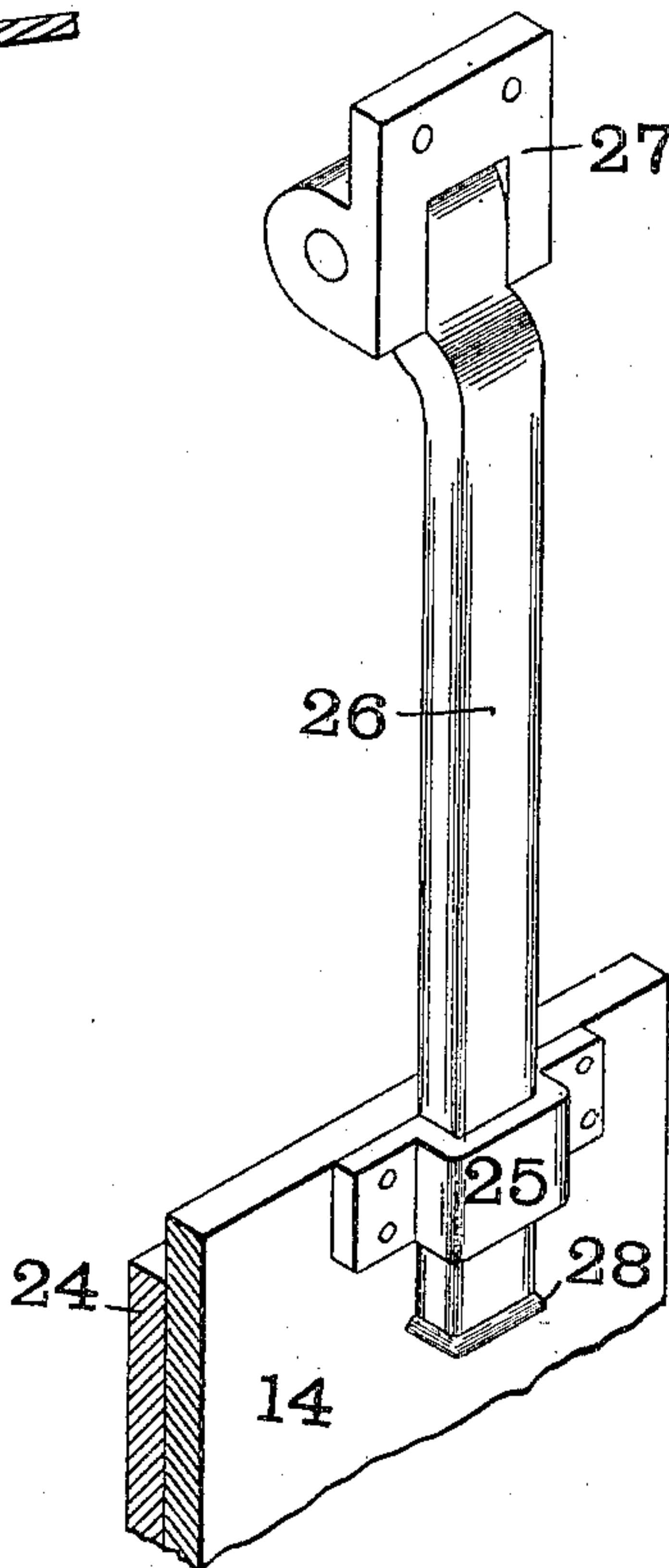


Fig. 5.



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UNITED STATES PATENT OFFICE.

LOUIS A. HOERR, OF ST. LOUIS, MISSOURI.

GRAIN-DOOR FOR CARS.

SPECIFICATION forming part of Letters Patent No. 709,486, dated September 23, 1902.

Application filed August 29, 1901. Serial No. 73,653. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. HOERR, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have invented a certain new and useful Grain-Door for Cars, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of my invention is to construct a grain-door for cars which while simple of construction will be reliable in operation and which can be readily controlled to allow the escape of grain from the car.

My invention consists in part in the combination, with a car, of a hanger pivotally mounted thereon and a grain-door slidingly mounted on said hanger.

My invention also consists in certain other novel features and details of construction, all of which are described in the following specification and pointed out in the claim affixed hereto.

In the accompanying drawings, which illustrate a grain-door made in accordance with my invention and a portion of the car to which the same is attached, Figure 1 is a front elevation. Fig. 2 is an enlarged section on the line 2 2 of Fig. 1. Fig. 3 is a vertical section through the car, the door being open. Fig. 4 is a vertical section through the car and door, the door being closed; and Fig. 5 is an enlarged isometric projection of one of the hangers.

Like marks of reference refer to similar parts of the several views of the drawings.

10 represents the side of the car, in which is formed the usual door-opening 11. At each side of the opening 11 is a post 12. The posts 12 are provided with strips 13, between which the door 14 is adapted to rest when in its closed position.

Secured to the floor 15 of the car are two stops 16, which prevent the door 14 from swinging inwardly when the said door is in its closed position.

Formed in the main door 14 is an auxiliary door 18. This door 18 is pivoted to the main door 14 by means of hinges 19. The auxil-

iary door 18 may be secured in any suitable manner—such, for instance, as by the sliding bolt 20, working in guides 21 on the door 18 and adapted to engage with keepers 22 on the main door 14. Pivoted to the upper edge of the main door 14 is an extension 24, which is adapted to extend the height of the main door 14 when it is in the position shown in Figs. 1 and 4 of the drawings, but which can be folded back against the main door, as shown in Fig. 3, when it is desired to open the main door. The main door 14 is provided at or near its upper edge with two guides 25, in which slide the hanger-rods 26, which are pivotally mounted to the side of the car above the door-opening 11 by means of hinges 27. The hanger-rods 26 are provided at their lower ends with enlarged portions 28, which prevent the door 14 from becoming disengaged with said hanger-rods 26. The door 14 may be held in its open position by any suitable means—such, for instance, as a gravity-catch 30, secured to the roof 31 of the car.

The door when in its closed position is as shown in Figs. 1 and 4. The main door is prevented from swinging inwardly by means of the stop 16. The auxiliary door 18 is held in its closed position by means of the sliding bolt 20, and the extension 24 of the main door is in its raised position, resting against the hanger-rods 26, so that the car may be filled with grain to a point near the top of the door-opening 11. When it is desired to discharge the grain from the car, the bolt 20 is slid, so that the auxiliary door 18 can open forwardly. This allows the grain to run out from the opening left by the said door 18 until the pressure upon the main door 14 is reduced sufficiently to allow the said main door 14 to be slid upwardly on the guide-rods 26 until it is clear of the stops 16. This also forms a larger opening at the bottom of the door. As soon as sufficient grain has been run out of the car the extension 24 can be folded downwardly against the main door and the said main door slid upwardly until the guides 25 are near the upper end of the hanger-rods 26. The hanger-rods can then be swung on their pivots 27 so as to bring the door in the position shown in Fig. 3, where it can be held by the gravity-catch 30.

It will be seen that while my door is simple of construction it is easy of operation and very effective in its action.

Having fully described my invention, what
5 I claim as new, and desire to secure by Letters Patent of the United States, is—

The combination with a railway-car, of a pair of hanger-rods pivoted to said car, a door slidingly mounted on said hanger-rods, and
10 an extension hinged to the upper edge of said

door to swing against said hanger-rods when in its raised position.

In testimony whereof I have hereunto set my hand and affixed my seal in the presence of the two subscribing witnesses.

LOUIS A. HOERR. [L. s.]

Witnesses:

JAMES H. BRYSON,
W. A. ALEXANDER.