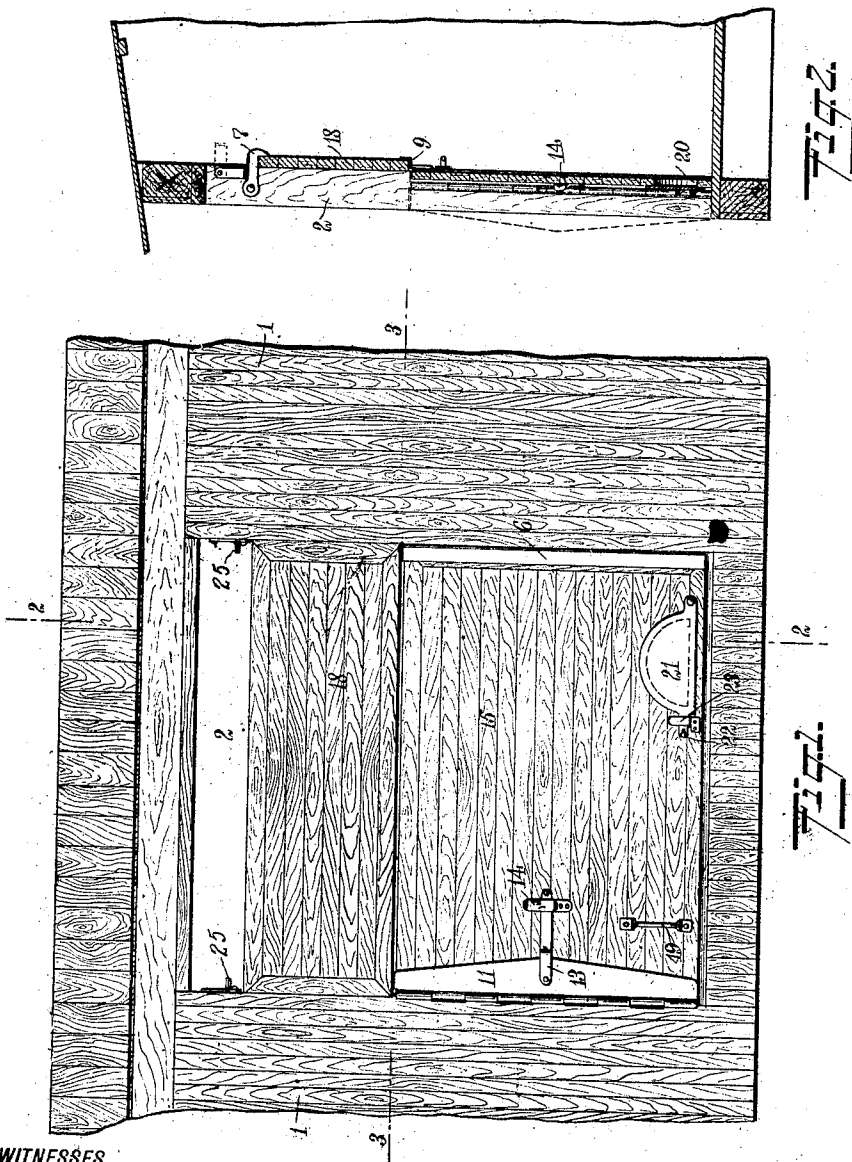


J. W. WHEELER.
DOOR FOR GRAIN CARS.
APPLICATION FILED NOV. 8, 1910.

1,003,308.

Patented Sept. 12, 1911.

2 SHEETS—SHEET 1.



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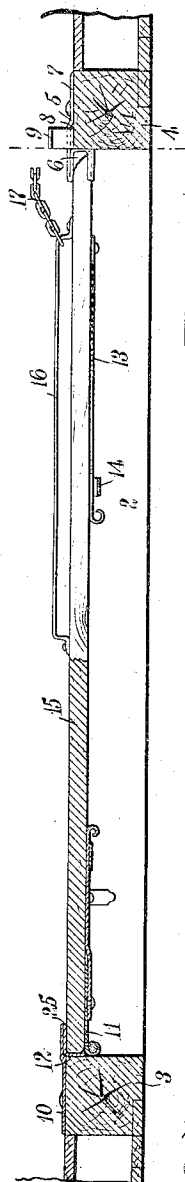


Fig. 3.

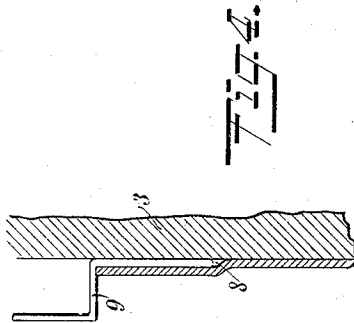


Fig. 4.

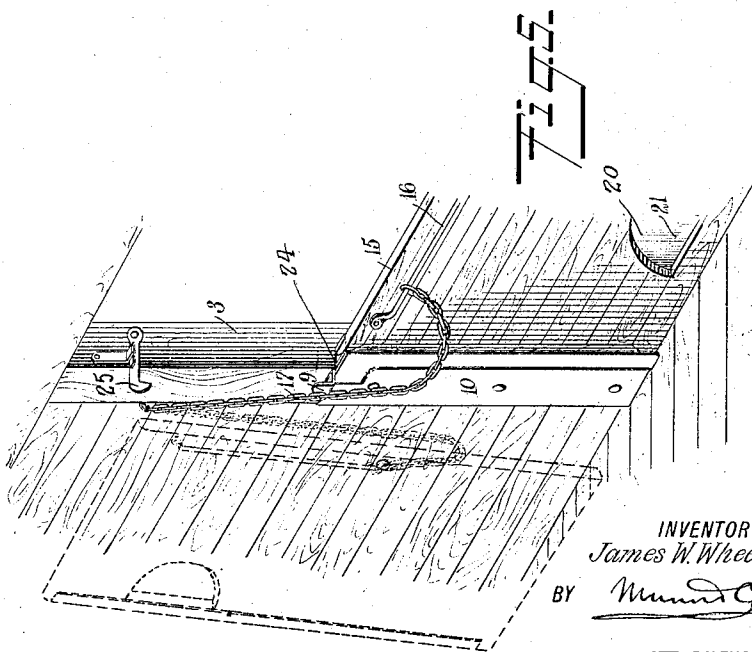


Fig. 5.

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UNITED STATES PATENT OFFICE.

AMES W. WHEELER, OF PALMYRA, NEBRASKA, ASSIGNOR OF ONE-HALF TO ELLIOT LOWE, OF LINCOLN, NEBRASKA.

DOOR FOR GRAIN-CARS.

1,003,308.

Specification of Letters Patent.

Patented Sept. 12, 1911.

Application filed November 8, 1910. Serial No. 591,281.

To all whom it may concern:

Be it known that I, JAMES W. WHEELER, a citizen of the United States, and a resident of Palmyra, in the county of Otoe and State of Nebraska, have invented a new and Improved Door for Grain-Cars, of which the following is a full, clear, and exact description.

This invention relates to a new and improved door for grain cars, coal cars and the like, and particularly relates to that class of grain cars wherein the doors are successively built up as grain or other commodity is placed into the car.

One object of the invention is to provide a new and improved door, which can be rigidly and securely fastened to the framework when in use, and may readily be swung out of the way when not in use, and further provides means for attaching the door to the framework on the car in both of these positions. I attain this object by positioning in opposite sides of the door frame, guideways adapted to receive the door, and having a device whereby one of the sides of the guideway may be swung out of the way, to admit of freely inserting or removing the door from the opening, and I provide means for securing the door to the framework by means of a chain connection.

With the above and other objects in view, as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the appended claim.

In the accompanying drawings, forming part of this specification, the reference characters of which indicate corresponding parts in the several figures,—Figure 1 is a plan view from the outside of a car showing a preferred embodiment of my invention; Fig. 2 is a sectional view taken through the line 2—2 of Fig. 1; Fig. 3 is a longitudinal sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a detail showing one means for attaching the angle pieces to the framework; and Fig. 5 is a perspective view showing part of the rear of a door and the adjacent sill, and also showing in dotted lines, the door removed and swung out of the way.

In the disclosure herein set forth, the side of the box car 1 is provided with an opening 2, having uprights 3 and 4, spaced apart

at opposite sides of the opening. Positioned upon one of these uprights, 4, and adjacent the inside of the car, is a guideway 5, extending part way up said frame, the channel 6 of which guideway faces inwardly into the door opening 2, and has a projecting piece 7 attached to the upright 4. This member 7 is offset at 8 and positioned in this offset 8 is an angle piece 9, for a purpose hereinafter described. Upon the opposite side of the door opening, is a similarly-constructed guideway 24, having a flat face 10, attached to the upright 3, and having a channel 25 in alinement with and facing the channel 6. The guideway 24 has one side 11 hinged to the base 12 of the guideway by any suitable means. This side 11 is of greater width than the opposite member of the channel bar 10, and has pivotally positioned thereon, a latch 13, which fits into a latch-receiving member or keeper 14 on the outside of the door 15. At the inside and at the top of the flat face 10 of the guideway, is an offset portion to accommodate an angle piece 9, disposed in alinement with the angle piece 9 on the opposite side of the door opening.

On the back of the door 15 and adjacent the upright 4, is an offset bar 16, to which is slidably connected a loose chain 17, which chain is permanently fastened to the upright 4 as shown, or to any part of the frame of the car. Positioned above the door 15 is an additional door 18 carried by the angle pieces 9 and held in position by the fastening members 17 positioned on the sides of the uprights 3 and 4. The door 15 is also provided with a handle 19 and a discharge opening 20 closed by a pivoted plate 21, which plate is locked by a tongue 22 engaging with a lip 23.

When the door is not in use, it may be placed out of the way inside the car, and due to the fact that it is held by the chain 17, this door cannot be misplaced or lost.

In order to place the door in position, one end is inserted into the channel 6, the side 11 of the opposite guideway is swung open, the door is inserted into the opposite channel, the side 11 is swung to, and the lip 13 engages the keeper 14. It will be noted that by this arrangement, the door is readily and securely locked in position.

When the grain has reached the level necessitating the positioning of another

door, the door 18 is inserted over the angle pieces 9, and the latch 25 comes down over the door, thereby securely fastening the door 18 in position.

5 As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all mat-
10 ters contained herein in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

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

In combination with a structure having an opening formed by spaced-apart uprights, a door adapted to be disposed be-
20 tween said uprights, a channeled guideway positioned upon one of said uprights and adjacent the inside of the upright, said guideway extending part way up one of said uprights, a projecting piece attached
25 to said last-mentioned upright, said project-

ing piece offset, an angle piece positioned in said offset, a second guideway having a flat face attached to the other of said uprights and having a channel in alinement with said channel in said first-mentioned guideway, 30 said guideway having a hinged side adapted to open outwardly, said side being of greater width than the opposite member of the last-mentioned channel, a latch pivotally positioned on said wide member, adapted to en- 35 gage a keeper in the outside of said door, said flat face being offset at its top, an angle piece disposed in said offset in alinement with the angle piece on the opposite side of the door, and a superposed door carried by 40 said alined angle pieces, whereby said first-mentioned door may be swung outwardly independently of the superposed door.

In testimony whereof I have signed my name to this specification in the presence of 45 two subscribing witnesses.

JAMES W. WHEELER.

Witnesses:

JOSEPH WHYTE,
C. E. RENNER.