

No. 695,165.

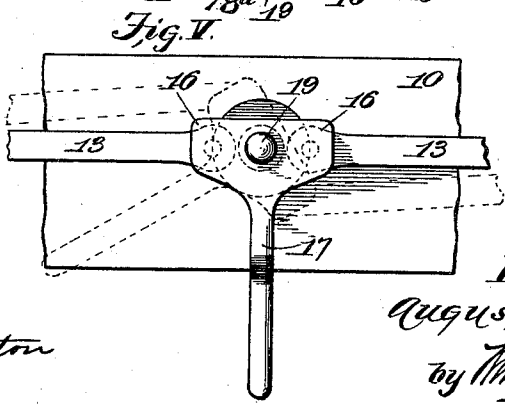
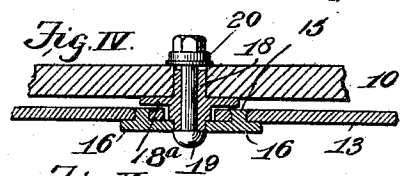
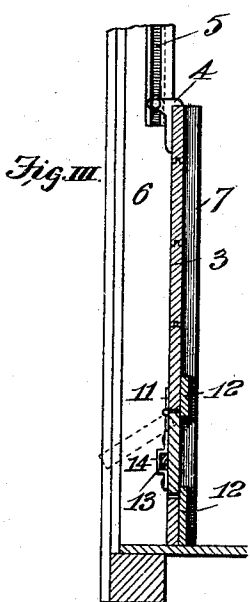
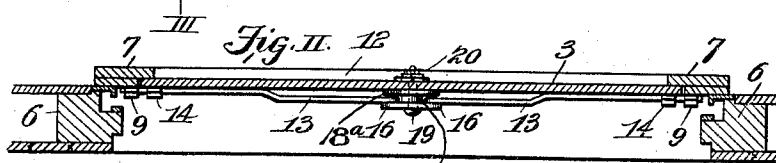
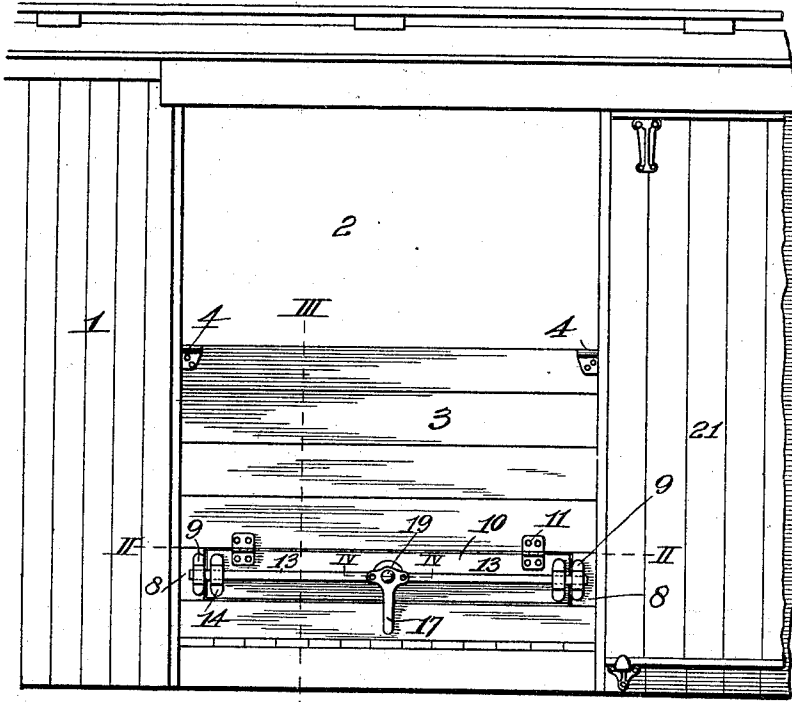
Patented Mar. 11, 1902.

A. MILLER.  
GRAIN CAR DOOR.

(Application filed June 8, 1901.)

(No Model.)

Fig. I.



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# UNITED STATES PATENT OFFICE.

AUGUST MILLER, OF ST. LOUIS, MISSOURI.

## GRAIN-CAR DOOR.

SPECIFICATION forming part of Letters Patent No. 695,165, dated March 11, 1902.

Application filed June 8, 1901. Serial No. 63,729. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST MILLER, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Grain-Car Doors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 My invention relates to a grain-car door provided with a movable panel through which the grain contained by the car may be discharged initially for the purpose of relieving the pressure against the door previous to the removal of the door; and it also relates to means whereby the movable panel is held in closed position.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a view in elevation, showing my improved door mounted in a car. Fig. II is a horizontal sectional view taken on line II II, Fig. I. Fig. III is a vertical sectional view taken on line III III, Fig. I. Fig. IV is an enlarged sectional view taken on line IV IV, Fig. I. Fig. V is an enlarged detail face view of the eccentric locking-bolt lever and the inner ends of the locking-bolts.

1 30 1 designates a car, the doorway 2 of which is adapted to receive the door 3, which is provided with guiding-supports 4, positioned in guides 5, fixed to the door-posts 6 of the car. The door 3 is constructed of a series of longitudinal panels that are connected by vertical battens 7. One of the panels of the door is omitted therefrom near the bottom of the door, providing an opening therein, at each end of which is a vertical strip 8, and attached to each of said strips is a keeper 9.

10 45 10 designates a swinging panel positioned in the opening in the door and connected to the door-panel immediately above the opening by hinges 11, that permit of the swinging panel being moved outwardly to uncover said opening. When the swinging panel 10 is in closed position, it rests against longitudinal guard-strips 12, attached to the door at the rear thereof and projecting slightly over the opening therein.

13 designates a pair of sliding locking-bolts having their outer ends mounted in guide-

boxes 14, carried by the swinging panel 10 and adapted to enter the keepers 9 to retain the movable panel in closed position. The inner ends of the locking-bolts 13 are connected to pivot-studs 15, carried by the arms 16 of an eccentric lever 17. The eccentric lever is mounted upon a pivot member 18, centrally positioned upon the swinging panel 10. This pivot member is provided near its center with a flange 18<sup>a</sup>, which when the pivot member is mounted in the panel bears against the outside thereof. The top of this pivot member is provided with a seat 18<sup>b</sup>, on which the eccentric lever is held by a bolt 19, that passes through the member 18, and the bolt is provided with a nut and washer 20, that bears against the rear of the door. It will be seen that by this construction the pivot member is clamped upon the panel, and the eccentric lever 17 is seated upon the pivot member in a manner to prevent the lever 17 or locking-bolt 16 coming into contact with the panel, and thereby interfering with the operation of the panel-locking mechanism.

In the practical use of the door when the car is filled with grain the door occupies the position seen in Figs. I and III, being held upright by the weight of the grain within the car. The swinging panel 10 is at this time held closed by the locking-bolts 13, being projected through the guide-boxes 14 into the keepers 9, into which position they are moved by manipulation of the eccentric lever 17. When it is desired to empty the car, the eccentric lever 17 is grasped manually and rocked, so as to move the locking-bolts 13 longitudinally and withdraw their ends from the keepers 9, thereby freeing the movable panel 10 from restraint and permitting it to swing outwardly on its hinges 11 and allow the grain to flow initially through the opening closed by said swinging panel. After the grain resting against the door has been discharged from the car the door may be elevated to the roof of the car, as usual, being moved with its guide-supports 14, traveling in the guides 5, that are carried by the door-posts. When the swinging panel 10 is in closed position, it rests against the guard-strips 12, thereby preventing the escape of the grain through the crevices between the edges of the door and the adjacent panels.

21 is the usual sliding door, adapted to be moved over the doorway 2 to close it in transit.

I claim as my invention—

The combination of a main door having an opening, a panel hinged to cover the opening, keepers upon the main door, and a locking mechanism carried by the panel and comprising a pivot member having a flange and a seat, a lever mounted on the seat, a bolt passing through the pivot member, holding the

lever upon the seat and clamping the pivot member to the panel, and locking-bolts secured to the pivot member, the ends of said locking-bolts being adapted to project into the keepers to lock the panel in a closed position.

AUGUST MILLER.

In presence of—

E. S. KNIGHT,

M. P. SMITH.