

No. 664,716.

Patented Dec. 25, 1900.

A. T. BRAMER.
GRAIN DOOR FOR CARS.

(Application filed Apr. 13, 1900.)

(No Model.)

Fig. 3.

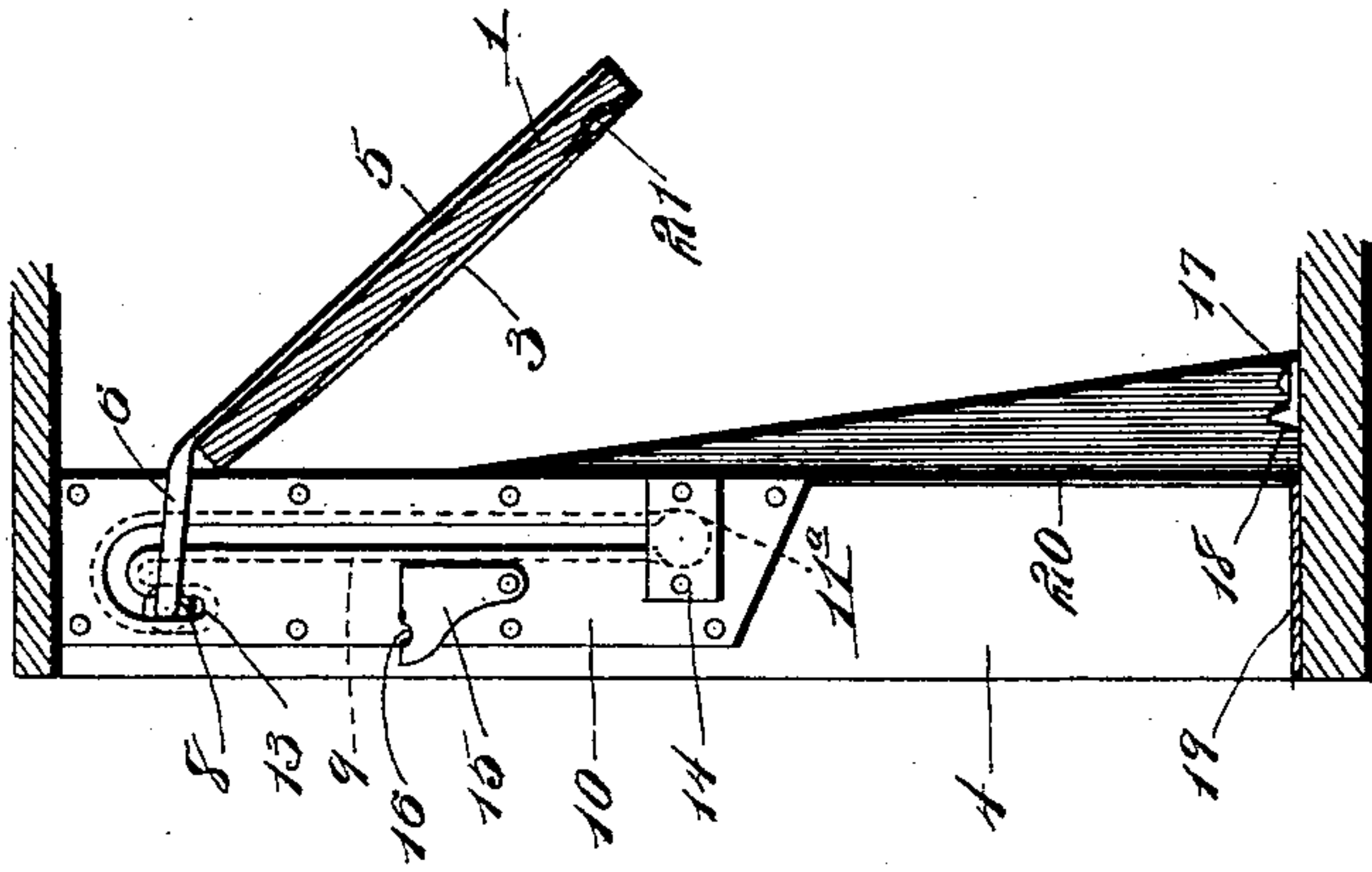


Fig. 2.

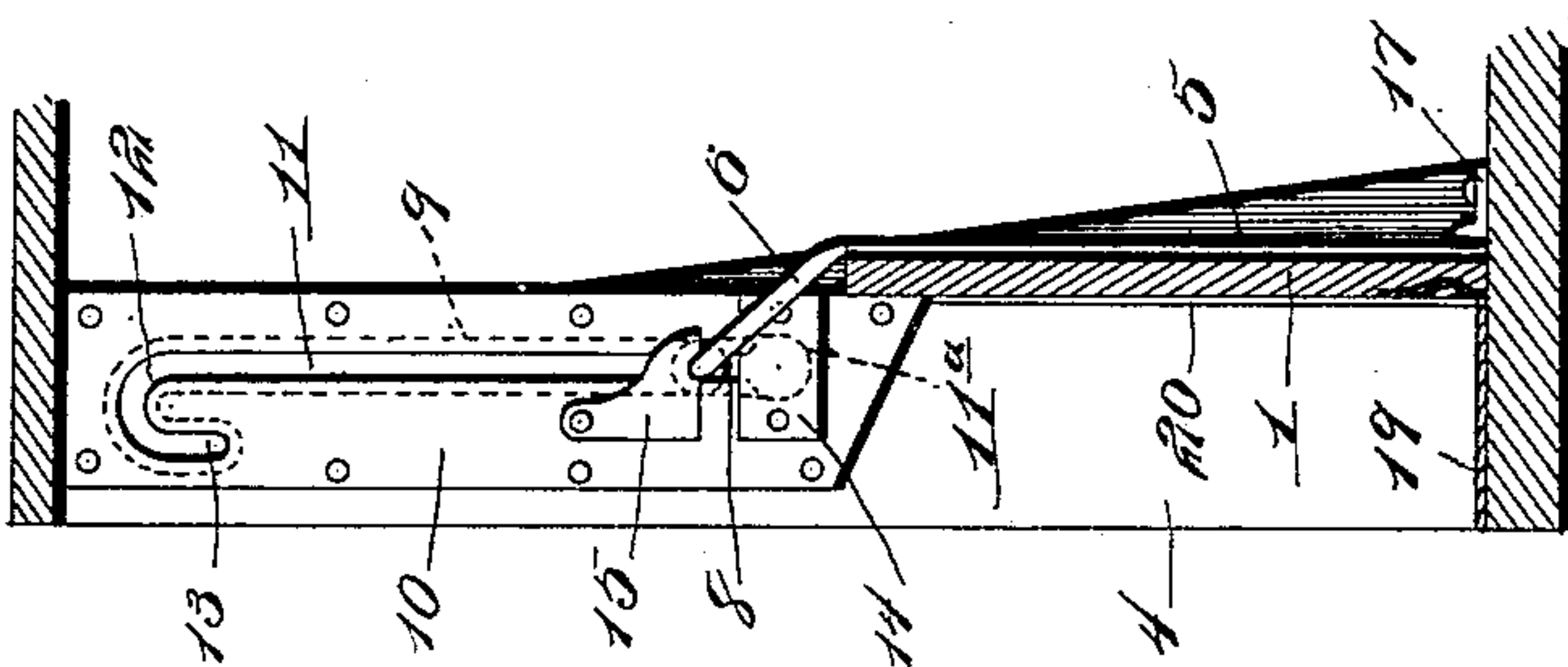
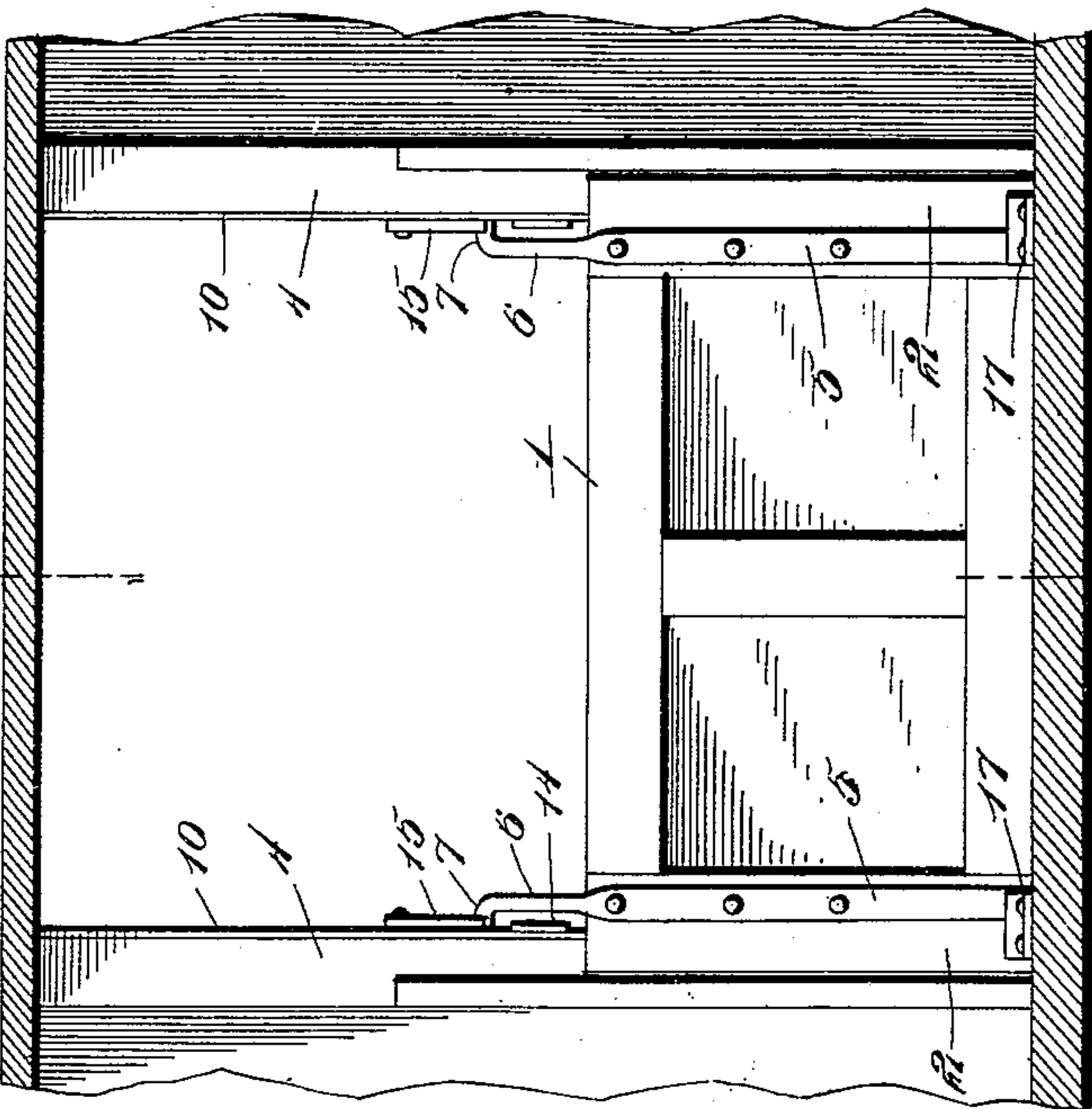


Fig. 1.



Witnesses

Louis D. Heinrichs
Albert D. Larson.

Inventor
August T. Bramer

By Victor J. Evans.

Attorney

UNITED STATES PATENT OFFICE.

AUGUST T. BRAMER, OF WENTWORTH, MISSOURI, ASSIGNOR OF ONE-HALF
TO JOHN W. GARETSON, OF SAME PLACE.

GRAIN-DOOR FOR CARS.

SPECIFICATION forming part of Letters Patent No. 664,716, dated December 25, 1900.

Application filed April 13, 1900. Serial No. 12,763. (No model.)

To all whom it may concern:

Be it known that I, AUGUST T. BRAMER, a citizen of the United States, residing at Wentworth, in the county of Newton and State of Missouri, have invented new and useful Improvements in Grain-Doors for Cars, of which the following is a specification.

This invention relates to new and useful improvements in grain-doors for cars, &c.; and its primary object is to provide a simple and durable device of this character which may be readily suspended when not in use, which is absolutely grain-proof when closed, and which does not necessitate the use of plates, bars, &c., projecting from the door-jambs.

A further object is to provide means of novel construction whereby the door may be securely fastened in closed position.

To these ends the invention consists in the novel construction and combination of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a front elevation of the device in closed position. Fig. 2 is a section on line *x x*, Fig. 1. Fig. 3 is a similar section showing the door in raised position.

Referring to said figures by numerals of reference, 1 is a door constructed in any suitable manner and having its vertical side strips or cleats 2 bulged inwardly, as shown at 3, said thickened portions adapted to bear upon the outer edges of the jambs 4 of the door. Secured to the outer face of each cleat 2 is a plate 5, which preferably extends the entire length of said cleat and is secured thereto in any suitable manner, as by means of bolts. These plates are provided at their upper ends with cylindrical extensions or arms 6, which project inwardly at an angle to the plates and are provided at their ends with lateral extensions 7, terminating in heads 8, adapted to slide within longitudinally-extending grooves 9, formed within the inner surface of the door-jambs 4. Plates 10 are preferably secured to the jambs adjacent to the grooves 9, and these plates are provided with grooves 11, which are adapted to register with the grooves within the jambs. Said grooves are curved at the upper end, as shown at 12, forming seats 13 for

the purpose hereinafter described. The lower ends of the grooves in the plates 10 are enlarged, as at 11^a, to admit the heads 8 into the grooves of the door-jambs. These enlarged portions of the grooves are adapted to be closed in any suitable manner, as by means of plates 14, which are secured thereover in any suitable manner.

Pivotaly secured to plate 10 at a point adjacent to the slot therein and above the lower end thereof is a dog 15, which is adapted to overhang the lateral extension of the arm 6 when the same is in its lowered position, a notch, as 16, being formed within the edge of said dog and adapted to engage with the lateral extension referred to.

Secured to the floor of the sill of the door at points preferably in front of the door-jambs 4 are irons 17, provided with beveled inner edges 18, as shown. The door-sill is provided with a sill-iron 19 of the usual construction, and the jambs 4 are preferably provided at their front edges with protecting-plates 20, as shown.

Within the inner surface of the door 1, near the lower edges thereof, is formed a recess 21, which is preferably provided with a metallic lining, as shown, and is adapted to be engaged by a hook or other suitable device secured to the ceiling of the car and whereby the door may be held suspended in raised position.

In operation the door is closed by releasing the lateral extensions of the arm 6 from the seats 13, thereby permitting the same to slide downward within the slotted plates upon the door-jambs. The door will fall upon the upper edges of the beveled sides of the sill-irons 17 and will be forced inwardly thereby against the edges of the door-jambs, firmly clamping the bulging portions of the cleats of the door against said edges. The dogs 15 are then swung downward upon their pivots, causing the notches therein to engage the lateral extensions of the arm 6 and preventing upward movement thereof. When it is desired to raise the door, the dogs are swung upward out of engagement with the extensions, and said extensions are slid upward within the grooves and seated within the recurved portion thereof at 13.

In the foregoing description I have shown the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without
5 departing from the spirit or sacrificing the advantages thereof, and I therefore reserve the right to make such changes as fairly fall within the scope of my invention.

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

The combination with grooved door-jambs and a sill; of irons having inner beveled edges

and secured to said sill, a door, thickened end strips to said door, plates secured to said
15 strips, arms projecting from the plates, lateral extensions to the arms slidably mounted within the grooves of the jambs, and dogs pivoted to the jambs and adapted to retain the extensions in lowered position.

In testimony whereof I affix my signature
20 in presence of two witnesses.

AUGUST T. BRAMER.

Witnesses:

PAT JENNETT,
H. KERKEMYER.