

(No Model.)

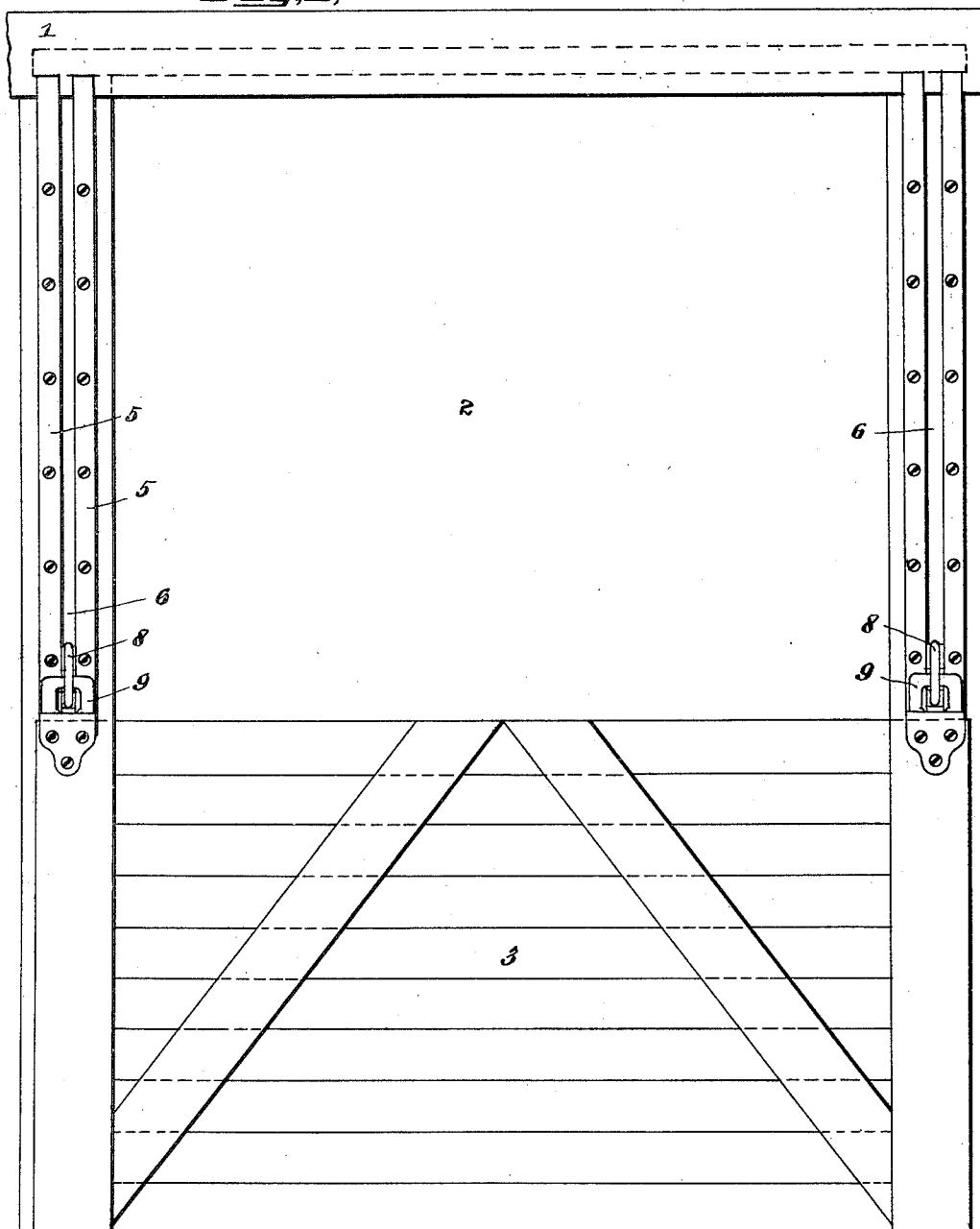
2 Sheets—Sheet 1.

J. C. WANDS.
GRAIN DOOR FOR RAILWAY CARS.

No. 477,092.

Patented June 14, 1892.

Fig. 1,



Attest
George E. Cruise
S. Cotton

Inventor;
John C. Wands.
By *Wright Bros.*
attys.

(No Model.)

2 Sheets—Sheet 2.

J. C. WANDS.
GRAIN DOOR FOR RAILWAY CARS.

No. 477,092.

Patented June 14, 1892.

Fig. II,

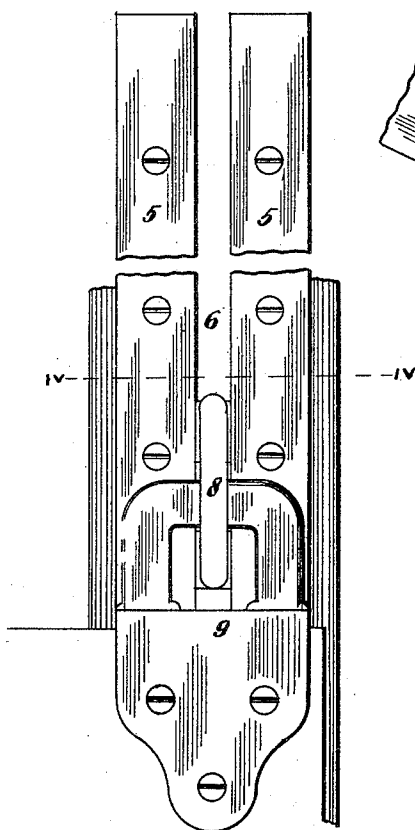


Fig. III,

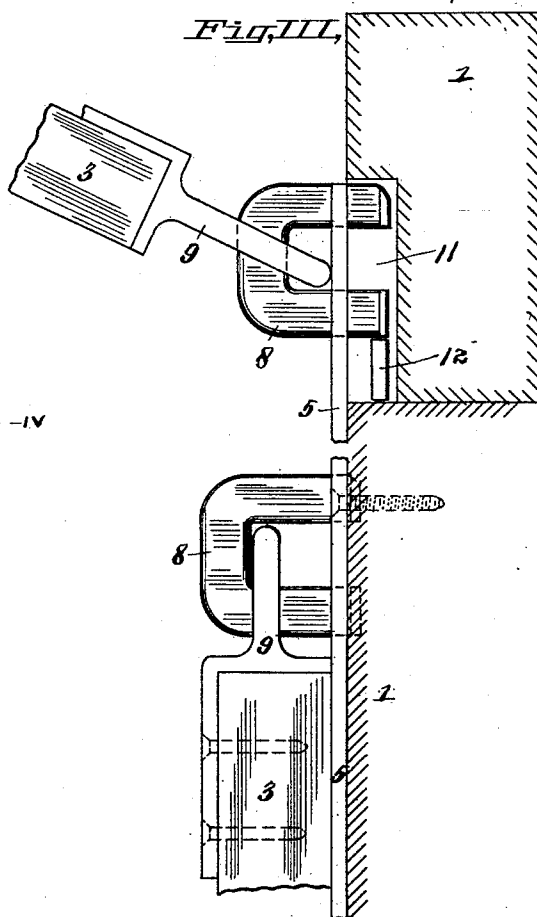
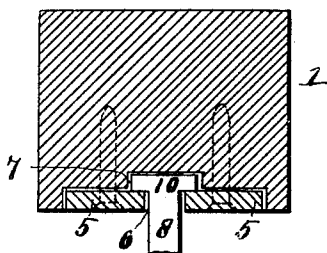


Fig. IV,



Attest
George E. Case
S. Cotton

Inventor:
John C. Wands
By Knight Bros
Attys

UNITED STATES PATENT OFFICE.

JOHN C. WANDS, OF ST. LOUIS, MISSOURI.

GRAIN-DOOR FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 477,092, dated June 14, 1892.

Application filed September 28, 1891. Serial No. 407,050. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. WANDS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Grain-Doors for Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a simple and effective as well as cheap and durable method of attaching the door to a car-body; and my invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is an elevation illustrative of my invention. Fig. II is an enlarged detail elevation. Fig. III is an enlarged edge view. Fig. IV is a transverse section taken on line IV-IV, Fig. II.

Referring to the drawings, I represents part of the body of a car, having, as usual, a door opening.

3 represents the door. These doors have long been arranged so as to be moved vertically in opening them and then turned upon hinges, swinging the lower end of the door upwardly away from the car.

My invention relates to a simple and effective device for connecting the door to the car-body, so that this manner of opening the door is facilitated and improved.

5 represents metal strips secured in a vertical position on each side of the door-opening, these strips being preferably set into the body of the car, so as to be flush with the outer surface, as shown clearly in Fig. IV. The strips on each side of the doorway are placed a short distance apart, forming a space or groove 6 between them. Behind the adjacent edges of the plates the body of the car is cut out, forming a groove 7.

8 represents staples or brackets, preferably of U shape, as shown, and which are loosely connected to the upper corners of the door by means of eyes or castings 9, (see Fig. I,) thus affording a hinge or pivotal connection between the door and staples or brackets. The

staples or brackets fit in the slots 6 between the plates 5 and have heads 10 on their inner ends, which fit in the grooves 7 behind the plates. It will thus be seen that the door is securely held in place by the staples or brackets, while it may be moved up or down, the staples or brackets sliding or moving through the spaces 6 formed by the plates 5, and when the door is raised to its upper position it may be swung with its lower end outwardly from the car, bringing the door into the position indicated in Fig. III, where it is held by any suitable means, such as a rope or chain, (not shown) connecting its lower or outer edge to the top of the car. The upper ends of the grooves 7 are made quite deep, as shown at 11, Fig. III, and at the lower end of the enlarged parts 11 of the grooves I locate a rest or stop 12. Thus when the door has been raised to its upper position and has been swung away from the car, as stated, the staples or brackets 8 will be forced inwardly and made to engage or rest upon the stops 12, as shown in Fig. III, and thus the top or inner edge of the door is firmly supported.

A device of this kind is easily applied and is very cheap and durable.

I claim as my invention—

1. The combination of the car-door, staples or brackets, and strips secured to the car-body, in grooves in the car-body behind said strips and said door being pivoted to and having loose connection with the staples or brackets, whereby the door may be moved vertically and then swung away from the car-body, substantially as and for the purpose set forth.

2. The combination of a car-body having grooves 7, with enlargements 11, a car-door, staples or brackets 8, having heads 10, and eyes or castings 9 for loosely connecting the staples or brackets to the car-door, substantially as set forth.

JOHN C. WANDS.

In presence of—

A. M. EBERSOLE,
E. S. KNIGHT.