

T. HIBBERT.  
Grain Car Door.

**Patented July 13, 1880.**

[illegible]

A detailed technical drawing of a mechanical assembly, likely a pump or engine component. The diagram shows a horizontal shaft or rod with various parts labeled with letters. On the left, a component labeled 'J' is connected to a shaft labeled 'G'. This shaft passes through a block labeled 'A' and then through a long section labeled 'B'. At the right end of section 'B', there is a component labeled 'F'. This component is connected to a shaft labeled 'D', which passes through a block labeled 'C'. The shaft 'D' is also connected to a component labeled 'D'' and a component labeled 'E'. The shaft 'D' is supported by a bearing or support labeled 'H'. The shaft 'D' is also connected to a component labeled 'K'. The shaft 'D' is also connected to a component labeled 'L'. The shaft 'D' is also connected to a component labeled 'M'. The shaft 'D' is also connected to a component labeled 'N'. The shaft 'D' is also connected to a component labeled 'O'. The shaft 'D' is also connected to a component labeled 'P'. The shaft 'D' is also connected to a component labeled 'Q'. The shaft 'D' is also connected to a component labeled 'R'. The shaft 'D' is also connected to a component labeled 'S'. The shaft 'D' is also connected to a component labeled 'T'. The shaft 'D' is also connected to a component labeled 'U'. The shaft 'D' is also connected to a component labeled 'V'. The shaft 'D' is also connected to a component labeled 'W'. The shaft 'D' is also connected to a component labeled 'X'. The shaft 'D' is also connected to a component labeled 'Y'. The shaft 'D' is also connected to a component labeled 'Z'.

John A. Ellis.  
F. J. Chasie.

INVENTOR  
Thos. Hibbert,  
by E. W. Anderson  
his ATTORNEY

# UNITED STATES PATENT OFFICE.

THOMAS HIBBERT, OF COCHRAN, INDIANA.

## GRAIN-CAR DOOR.

SPECIFICATION forming part of Letters Patent No. 230,012, dated July 13, 1880.

Application filed May 26, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS HIBBERT, of Cochran, in the county of Dearborn and State of Indiana, have invented a new and valuable Improvement in Grain-Car Doors; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an inside view of my improved grain-car door, and Fig. 2 is a top view thereof.

This invention has relation to improvements in railroad-cars.

The object of the invention is to adapt an ordinary box-car to the transportation of grain by applying thereto, across the entrances, a half-door, which may be swung up out of the way when the car is to be used for transporting goods.

The nature of the invention will be hereinafter more fully set forth.

In the annexed drawings, the letter A designates the inside of the side wall of the car, having the entrance-opening *a*, and at one side of said opening, at a distance therefrom equal to the height of the half-door B, an upright post, C, secured to the wainscoting or lining of the car.

D indicates a metallic plate pivoted at one end to post C and at the other end to the end of half-door B. This plate has something of the function of a hinge, and allows the door to be turned on end and pushed back against the post C, behind an angular metallic guide, D',

secured at one end to the said post and at the other to the floor of the car. The hinge-plate is provided with a small projecting pin, *n*, which engages under guide D', and prevents the door from being lifted out of its place when closed and locked. The guide serves to prevent the door from swaying outward, and serves the additional purpose of protecting the door from injury from goods-packages. When in the position shown in Fig. 1, across the entrance, the end of the door abuts against an upright metallic guard or stop, G, having a retaining-flange, *f*, behind which the end of said door is received and by means of which it is held upright. In the upper end of this guard is pivoted an eccentric or cam, J, which may be thrown up so as to allow the gate or door to be swung out of the way of the entrance or pressed down upon its edge, and thus lock it against casual displacement.

What I claim as new, and desire to secure by Letters Patent, is—

In a freight-car, the combination, with the car-entrance *a*, door B, and upright C, of the hinge-plate D, provided with stop-pin *n*, D being pivoted at one end to the upright and at the other to the end of the door, the guide D', secured to said upright and to the floor of the car, and engaging said pin *n*, and the flanged guard G, having a fastening, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

THOMAS HIBBERT.

Witnesses:

D. A. ROBERTSON,  
H. B. SHUTTS.