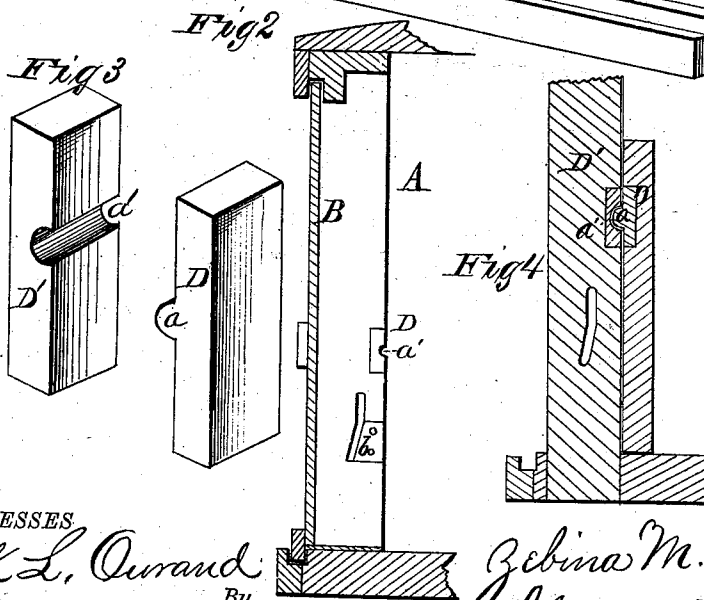
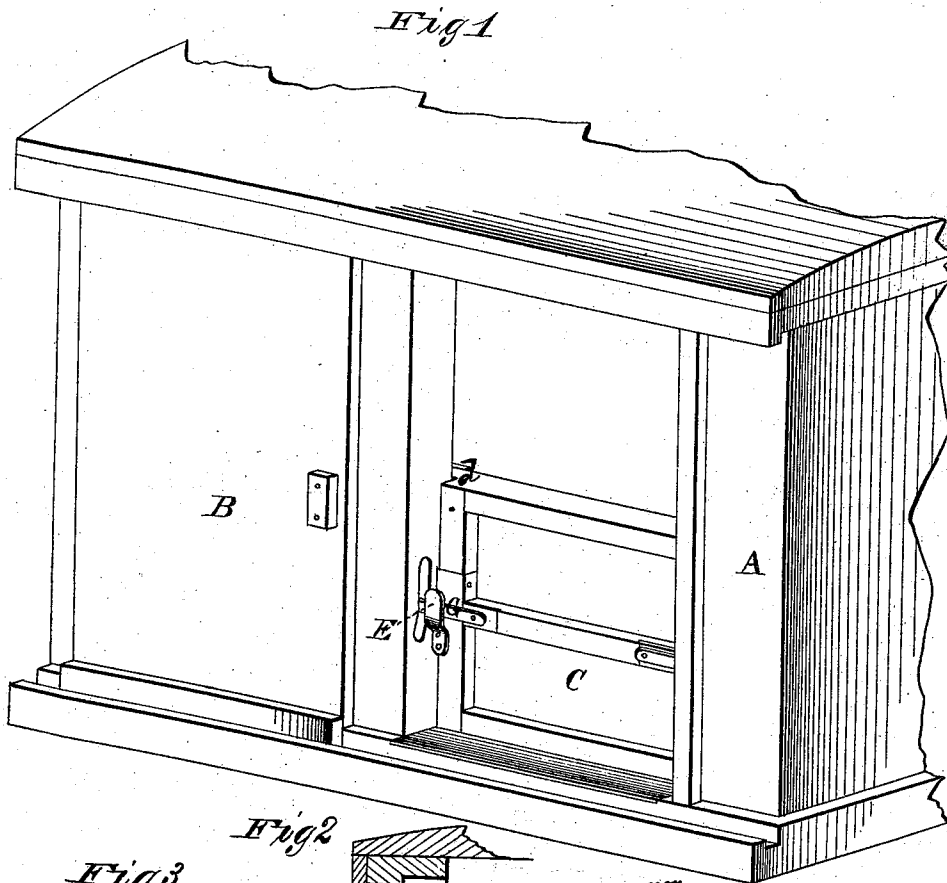


Z. M. HIBBARD.
GRAIN-DOORS FOR CARS.

No. 174,239.

Patented Feb. 29, 1876.



WITNESSES
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By

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UNITED STATES PATENT OFFICE.

ZEBINA M. HIBBARD, OF FREEPORT, ILLINOIS.

IMPROVEMENT IN GRAIN-DOORS FOR CARS.

Specification forming part of Letters Patent No. **174,239**, dated February 29, 1876; application filed January 22, 1876.

To all whom it may concern:

Be it known that I, Z. M. HIBBARD, of Freeport, in the county of Stephenson and in the State of Illinois, have invented certain new and useful Improvements in Grain-Doors for Freight-Cars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a grain-door for freight-cars, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view of the side of a railroad-car embodying my invention. Figs. 2 and 3 are detailed views of parts thereof. Fig. 4 is a section through one side of the door and door jambs.

A represents the side of a railroad freight-car, with the ordinary sliding door B. C is the grain-door, made with offsets *d* at its sides so as to fit between and against the door jambs from the inner side of the car. Near the upper edge, on each side of the door C, in the offset *d*, is secured an iron, D, formed with a horizontal rib, *a*, to fit in a corresponding groove, *a'*, in another iron, D', which is secured in the door-jamb. These irons I call

“parting-irons.” At each end of the door is pivoted a lever, G, which drops into an open socket, E, fast to the door. These levers catch onto plates *b* of iron set flush in the door-posts and angling, as shown in Fig. 2, so that the harder the levers are forced down the tighter the door is forced against the door-posts, the parting-irons D D' keeping the door from lifting.

In removing the door the levers G have to be forced up, and the top of the door then pressed in to separate the parting-irons, when the door can be raised. The door is provided with band-iron around its edges to prevent warping.

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

1. The combination, with a grain-door, C, and the door-posts of a freight-car, of the parting-irons D D', provided, respectively, with the ribs *a* and grooves *a'*, substantially as and for the purposes herein set forth.

2. The combination, with the door-posts and door, of the pivoted levers G, open sockets E, angling plates *b*, and parting-irons D D', all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of December, 1875.

ZEBINA M. HIBBARD.

Witnesses:

C. L. EVERT,
J. W. NEFF.