H. C. McCARTY & E. GLENN.

Freight-Car Door.

No. 161,345. Patented March 30, 1875.

Fig. 1.

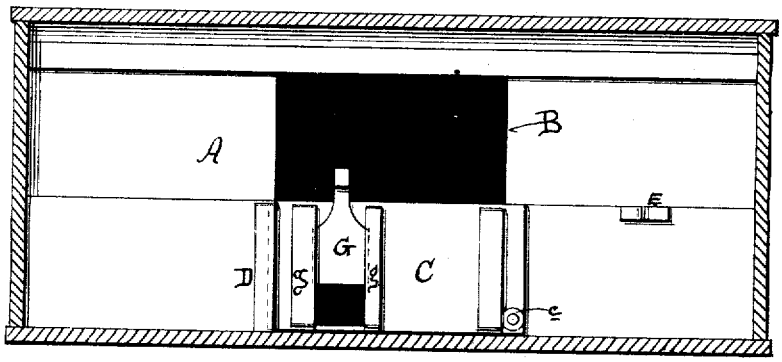
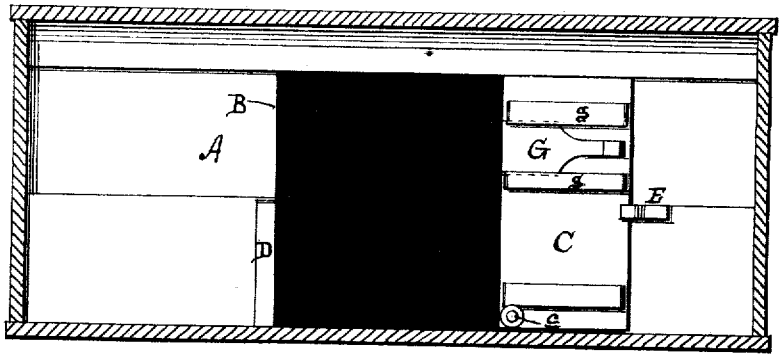


Fig. 2.



WITNESSES

R. L. Stevens

Jos. Hagmann

INVENTORS

Harry C. McCarty and Edward Glenn

By E. P. McLean

ATTORNEY

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

HARRY C. McCARTY AND EDWARD GLENN, OF RENOVO, PENNSYLVANIA.

IMPROVEMENT IN FREIGHT-CAR DOORS.

Specification forming part of Letters Patent No. **161,345**, dated March 30, 1875; application filed February 11, 1875.

To all whom it may concern:

Be it known that we, HARRY C. McCARTY and EDWARD GLENN, of Renovo, in the county of Clinton and State of Pennsylvania, have invented certain new and useful Improvements in Grain-Cars; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

Our improvement relates to the fitting of ordinary box-cars suitably for the transportation of grain in bulk.

For this purpose the ordinary door sliding on the outside of the car is insufficient, because it would require the cutting of said door near the bottom to discharge the grain from the center of the car. This would be objectionable for many reasons. The pressure of the grain against the inner side would be likely to spring the door sufficiently far outward to permit the grain to leak. It is therefore necessary to place a second door on the inner side of the car, against which the pressure of the grain will effect no harm. For this purpose a bar of loose boards, their ends held by battens, have been employed; but these loose boards are liable to be lost after the freight has been discharged. A bar of boards sliding in vertical grooves has also been employed, but this is difficult to handle, and if removed from its grooves, as is always the case after the grain has been discharged, it is detached from the car and liable to be lost.

Our invention consists of a door pivoted at one of its lower corners to the door-frame, so that it may be turned up on end against the inner side of the car when the grain has been discharged, in which position it is still securely attached to the car and not liable to be lost, and at the same time is entirely out of the way, and does not in the least obstruct the storage of freight. Therefore, by our invention an ordinary box-car may be fitted at a trifling expense so as to be ready at a moment's notice to load with grain in bulk and still be always ready to load with other goods when the grain has been discharged.

That others may fully understand our invention, we will particularly describe it.

A is the body of an ordinary box-car ceiled up around its side for the purpose of carrying grain. B is the doorway, having an ordinary sliding door upon the opposite or outer side of A. C is the grain-door, pivoted at *c*, one of its lower corners, to the door-case frame.

In Fig. 1 the door C is shown in position, ready for a freight of grain, while in Fig. 2 the door C is shown folded back out of the way, and the car ready for the reception of any ordinary freight.

When in position shown in Fig. 1 the free end of the door is secured against accidental displacement by a keeper, D, nailed fast to door-frame opposite that which the door is pivoted. When folded in position shown in Fig. 2 it is convenient to have a small keeper or clip, E, to hold one edge of the door and prevent it from swaying inward and breaking its pivot-bolt *c*.

It is desirable, in discharging the grain, to start it through a small orifice at first, so as to avoid too much waste, by delivering through a very wide orifice. We therefore place a small gate, G, upon the inner side of the swinging bar or door C, and fit said gate to slide in ways *g g*.

When, now, the grain is to be discharged from the loaded car, the small gate *g* is raised as in Fig. 1, and the grain from the center of the car will be discharged through it. The bar or door C may then be turned up and the whole width of the doorway be opened.

Having thus described our invention, we claim—

The combination of door C, pivoted at one of its lower corners to the door-frame, and having sliding gate G, with the car A, provided with keepers D and E, substantially as set forth.

HARRY C. McCARTY.
EDWARD GLENN.

Witnesses:
GIDEON GINTO,
JOHN REILLEY.