# D. CONNOR.

## Car-Doors.

No. 156,540. Patented Nov. 3, 1874.

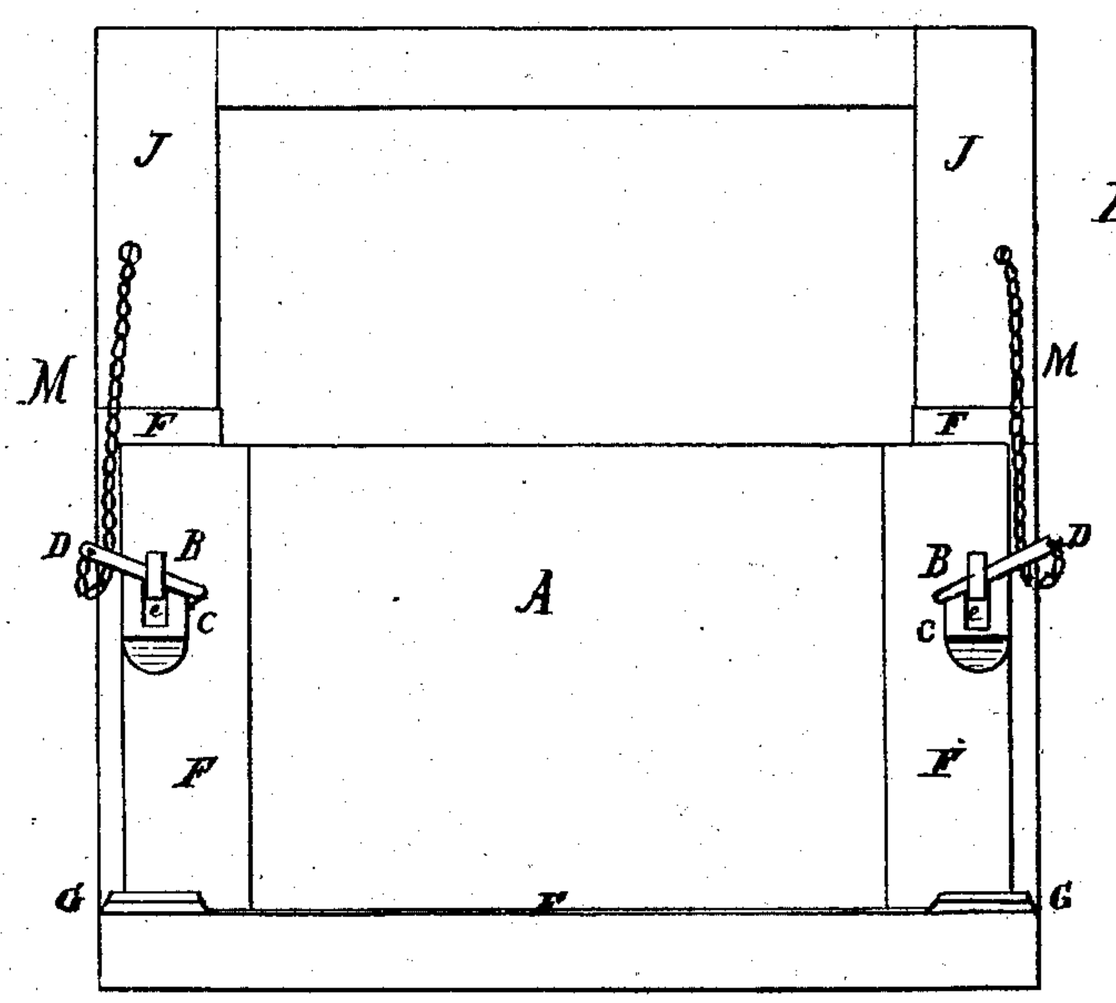


Fig. 1

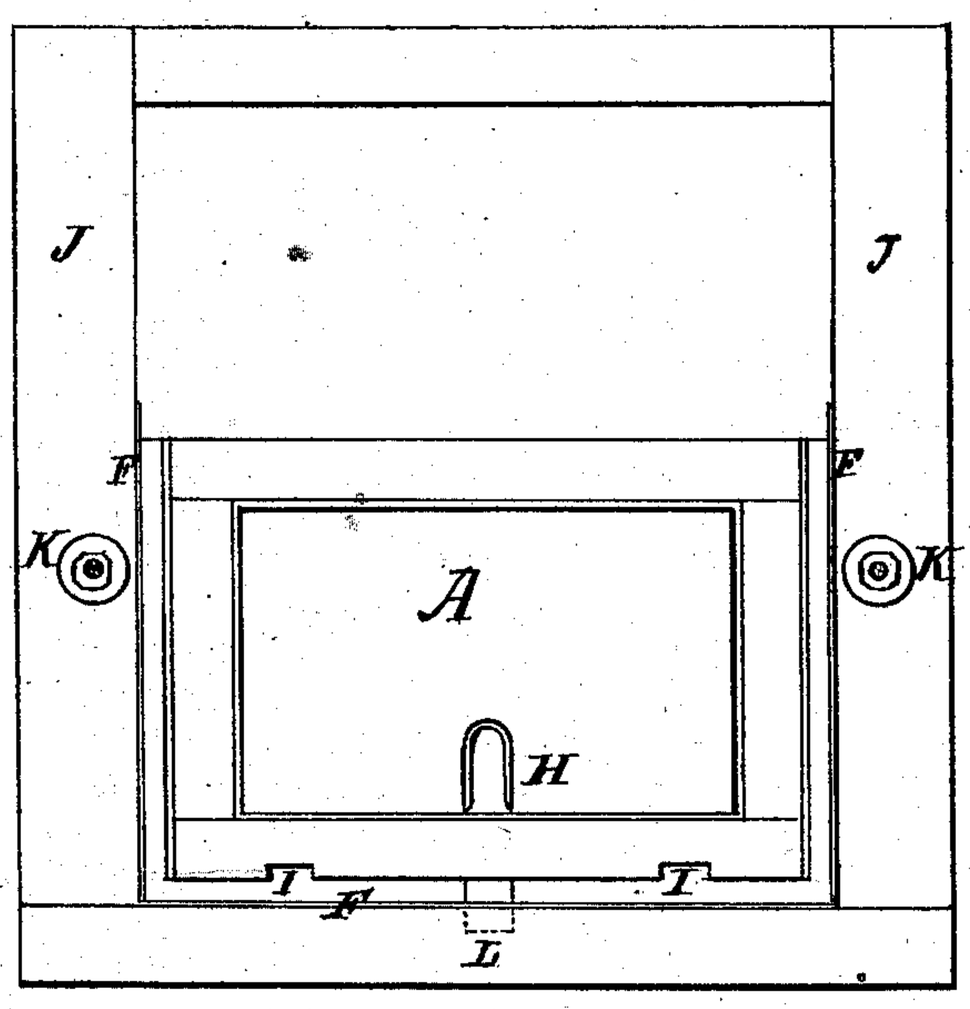


Fig. 2

Witnesses:

Julius Ward
Perry Perkins.

Inventor:

David Connor,
Thomas G. Orrig, Attorney.

# UNITED STATES PATENT OFFICE.

DAVID CONNOR, OF MARSHALLTOWN, IOWA.

## IMPROVEMENT IN CAR-DOORS.

Specification forming part of Letters Patent No. **156,540**, dated November 3, 1874; application filed July 29, 1874.

*To all whom it may concern:*

Be it known that I, DAVID CONNOR, of Marshalltown, in the county of Marshall and State of Iowa, have invented an Improved Grain-Door for Railroad-Cars, of which the following is a specification:

The object of my invention is to provide a simple and durable means of closing the doorway of a car designed to carry grain in bulk. It consists in attaching stationary eyebolts and corner-stops to the doorway, and bolt-rests or bearings and a dowel-bar to the door, in the manner hereinafter fully set forth.

Figure 1 of my drawing is an inside view of the door and doorway.

A represents a wooden door, which may be framed together in any suitable way. B B are the eyebolts, rigidly attached to the frame of the doorway to project inward and pass through corresponding slots in the ends of the door. C C are metal chucks attached to the door to engage the eyebolts B and form bearings for their keys D, suspended by the chains M. Their tops have an angling surface to retain the keys D at an angle that will prevent them from jolting out of the eyebolts. The slots *e* in the chuck C correspond with the slots through the door, and allow the door to be raised sufficiently to be disengaged from the corner-stops and dowel, which secure it at its lower edge, and also from the eyebolts B near the top. F represent metal plates on the door A and doorway J J, to add strength and prevent the wearing of the wood. G G are metal stops rigidly attached at the bottom corners of the doorway, to receive and retain the corners of the door.

Fig. 2 is an outside view of the door A and door-frame J.

K K are the ends of the eyebolts B, secured with washers and nuts. H is a dowel-bar, rigidly attached to the central and lower part of the door, and is designed to enter a corresponding mortise, L, in the door-sill. I I are notches cut in the bottom of the door, to admit iron bars and facilitate the opening and removal of the door, and the unloading of the grain.

I claim as my invention—

1. The door A for grain-cars, having the chucks C, with angling top surfaces and vertical slots *e*, in combination with the eyebolts and suspended keys D, substantially as described, and for the purposes specified.

2. The door A for grain-cars, having metal plates F and dowel-bar H, and notches I in the lower edge, in combination with a door-sill having corner-stops G and a mortise, L, substantially as and for the purposes specified.

DAVID CONNOR.

Witnesses:

GEO. W. KLEIN,

E. L. THAYER.