

UNITED STATES PATENT OFFICE.

CHARLES BEATTY, OF MANSFIELD, MASSACHUSETTS.

CAR-DOOR BEARING.

SPECIFICATION forming part of Letters Patent No. 728,657, dated May 19, 1903.

Application filed September 19, 1902. Serial No. 124,050. (No model.)

To all whom it may concern:

Be it known that I, CHARLES BEATTY, a citizen of the United States, residing at Mansfield, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Car-Door Bearings, of which the following is a specification.

This invention relates to improvements in freight-cars, and has special reference to an improved construction of bearing for the doors thereof.

Another object of my invention is the provision of a very simple, durable, and inexpensive ball-bearing attachment for the bottom of car-doors which will allow the doors to slide back and forth very easily, thus reducing the wear and tear upon the car and door, as well as assisting in holding the door in place.

To attain these objects the invention consists of a ball-bearing for car-doors embodying novel features of construction and combination of parts substantially as disclosed herein.

In the accompanying drawings, Figure 1 is a longitudinal section of a portion of a car and a section through my improved ball-bearings. Fig. 2 is a cross-section through the lower portion of the door, bearing, and car-floor. Fig. 3 is an enlarged detail view of one end of the bearing, and Fig. 4 is a view showing a modified form.

Referring to the drawings, A designates the floor of the car, upon which is suitably secured the runway or U-shaped ball-track B, in which is adapted to roll or bear the se-

ries of balls C, loosely carried in the retaining-strip D. This retaining-strip is provided with a series of circular apertures E and is secured to the depending end lugs F of the metal plate or strip G, whose under base acts as the upper bearing-surface for the ball. The plate G is secured to the under side of the door H by means of the flanges J. In Fig. 4 I employ the strip G', provided with end hooks K to hold and retain the balls L.

From the foregoing description it is evident that I provide a very simple ball-bearing for freight-car doors and one which can be readily attached and while relieving the door-hanging devices of the heavy weight of the door produces a very easy and thoroughly antifriction-bearing for the door.

What I claim as new is—

In combination with a freight-car having a door-opening with a runway at the top and bottom, of a car-door having a strip upon its upper edge, an apertured hook formed integral with the strip, a ball fitting in the aperture and contacting the top runway, a strip secured upon the lower edge of the door, a retainer-strip rigidly mounted and movable with said strip provided with a series of apertures, and balls fitting loosely in said apertures and contacting the lower strip and the lower runway.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES BEATTY.

Witnesses:

RICHARD WOODS,
OSCAR H. SIMMONS.