

J. DEAN & A. M. DEAN.

Improvement in Car-Trucks.

No. 129,110.

Patented July 16, 1872.

Fig. 1.

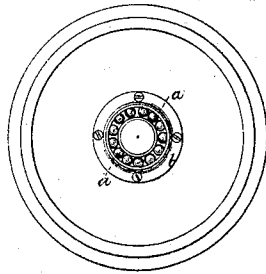
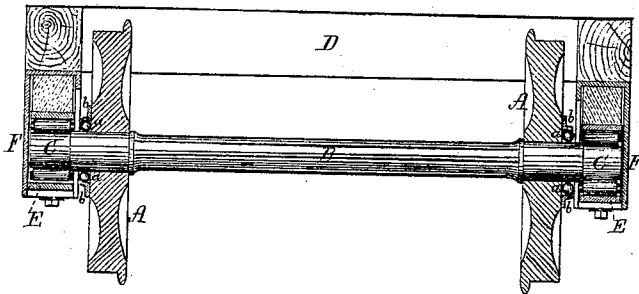


Fig. 2.



Witnesses.  
S. N. Piper  
L. N. Miller

Joseph Dean.  
Ambrose M. Dean.  
by their attorney.  
R. H. May

# UNITED STATES PATENT OFFICE.

JOSEPH DEAN, OF LINCOLNVILLE, AND AMBROSE M. DEAN, OF VINAL-HAVEN, MAINE.

## IMPROVEMENT IN CAR-TRUCKS.

Specification forming part of Letters Patent No. 129,110, dated July 16, 1872.

*To all persons to whom these presents may come:*

Be it known that we, JOSEPH DEAN, of Lincolnville, of the county of Waldo and State of Maine, and AMBROSE M. DEAN, of Vinalhaven, of the said county and State, have invented a new and useful Improvement in Carriages or the Wheels thereof, particularly such as used on railways; and we do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a side elevation of a car-wheel and axle furnished with our invention. Fig. 2 is a transverse section of a railway-carriage track taken lengthwise through one of its axles, and showing our invention as arranged with the housing of the bearing of the axle; there is also shown in said figure a series of friction-rollers applied to the journal and within its box.

In the drawing, A A denote the wheels; B, the axle; and C C the wheel-journals. D is the truck-frame; E E, the journal-boxes; and F F the housings. Each of the said boxes, arranged in the ordinary way in the housings, is shown as provided with a series of friction-rollers, placed within the box and about the journal thereof.

While the railway carriage is in movement its lateral movements create great friction on the shoulders of the journals. To overcome this friction is the object of our invention, in the carrying out of which we encompass the

axle with a series of rolls or balls, *a a a*, arranged close against the wheel or in a groove made in its side, and we apply to such series of balls and the side of the wheel a cap-ring or cover, *b*, so formed as to extend around all the balls and co-operate with the journal in holding them in place. The cap-ring is to be also so made as to permit the several balls to project beyond it sufficiently to run against the inner face of the housing or a suitable bearing applied thereto. Each ball or sphere is to be fitted loosely within the space in which it is to operate, in order that it may fairly roll around within such space and against the wheel.

The series of balls thus arranged and supported become an anti-friction shoulder for the journal.

We make no claim to friction-rollers arranged within the box of a wheel-journal or within the body of a wheel to revolve on a journal.

What we claim is—

The circular cap *b* and the series of anti-friction balls *a*, arranged together and applied to the side of a wheel and to its axle or journal, all substantially as and for the purpose or object as hereinbefore set forth.

JOSEPH DEAN.

AMBROSE M. DEAN.

Witnesses:

R. H. EDDY,

J. R. SNOW.