

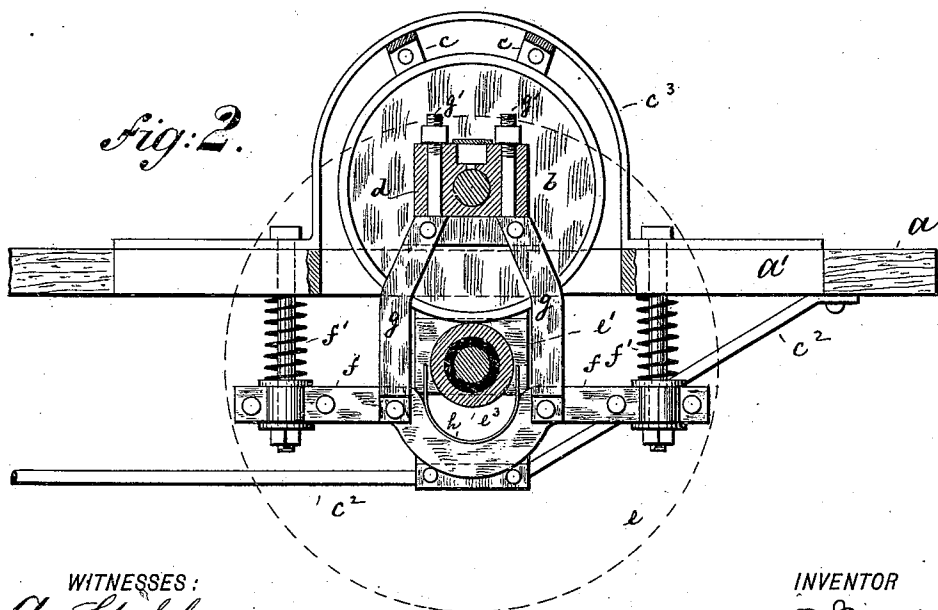
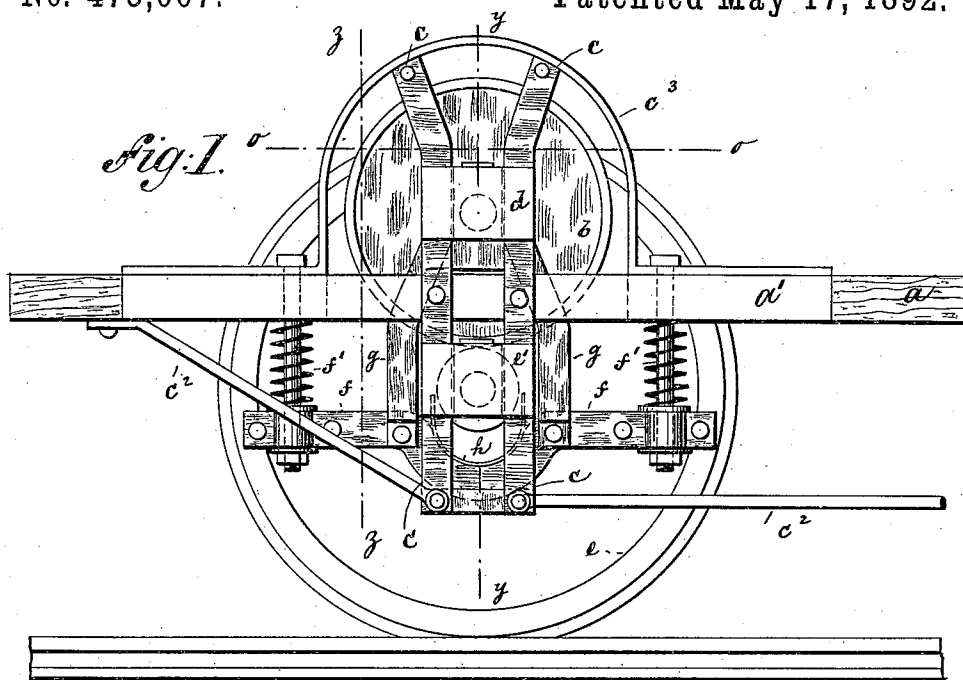
(No Model.)

3 Sheets—Sheet 1.

C. F. BUSCHNER.
ANTI-FRICTION BEARING FOR CARS.

No. 475,007.

Patented May 17, 1892.



WITNESSES:
A. Schuhl.
Wm. Schulz.

INVENTOR
C. F. Buschner
BY *Roeder & Brice*
ATTORNEYS.

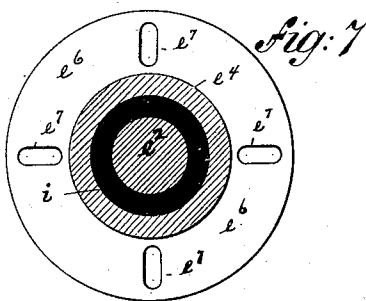
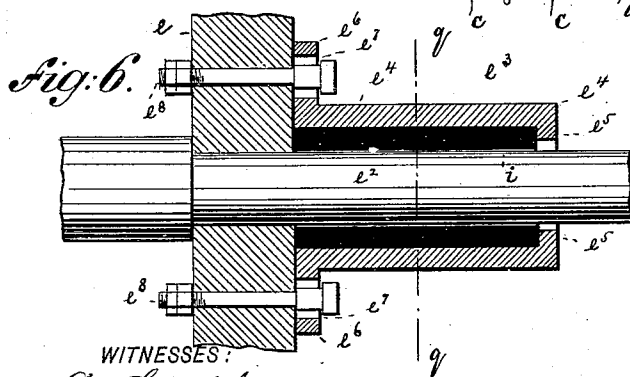
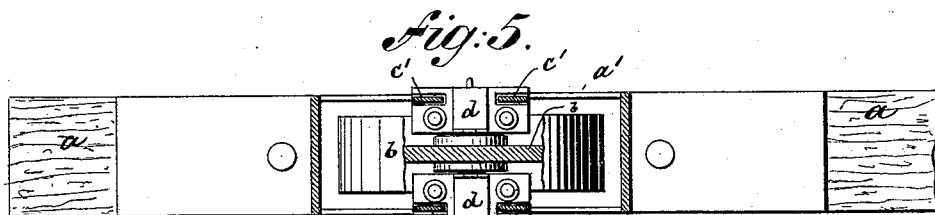
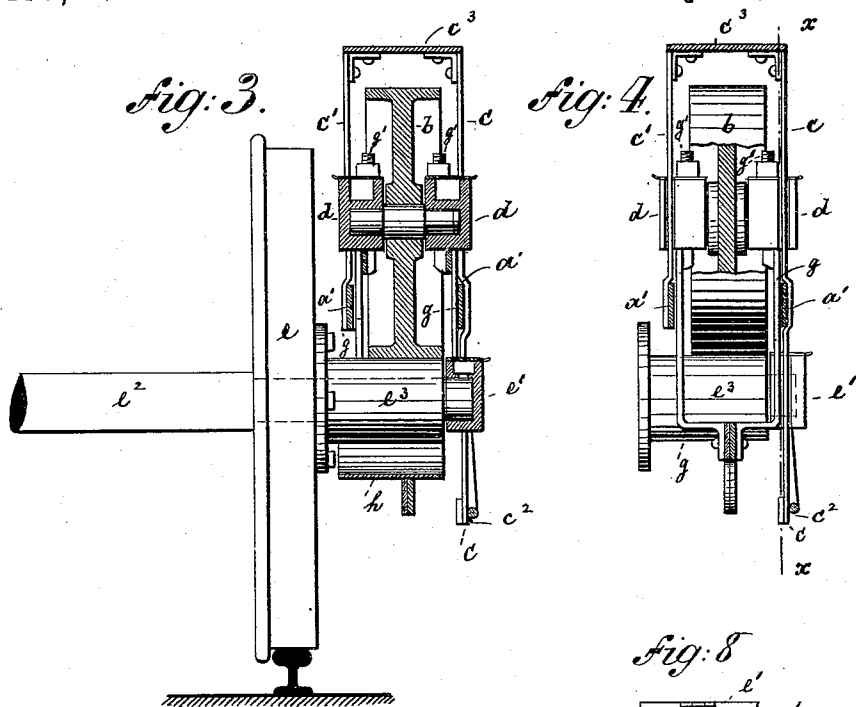
(No Model.)

3 Sheets—Sheet 2.

C. F. BUSCHNER.
ANTI-FRICTION BEARING FOR CARS.

No. 475,007.

Patented May 17, 1892.



WITNESSES:

A. Schehl.
Wm. Schulz

INVENTOR

BY *C. F. Buschner*
Roscoe & Brien
ATTORNEYS.

(No Model.)

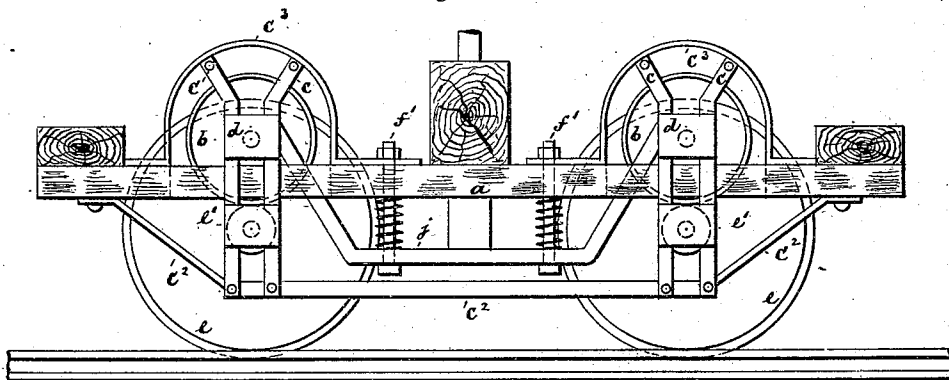
3 Sheets—Sheet 3.

C. F. BUSCHNER.
ANTI-FRICTION BEARING FOR CARS.

No. 475,007.

Patented May 17, 1892.

Fig. 9.



WITNESSES:
A. Schehl.
Wm. Schulz.

INVENTOR
C. F. Buschner
BY *Wooder & Hines*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CARL F. BUSCHNER, OF NEW YORK, N. Y.

ANTI-FRICTION BEARING FOR CARS.

SPECIFICATION forming part of Letters Patent No. 475,007, dated May 17, 1892.

Application filed January 14, 1892. Serial No. 418,012. (No model.)

To all whom it may concern:

Be it known that I, CARL F. BUSCHNER, of New York city, New York, have invented an Improved Anti-Friction Bearing for Cars, of which the following is a specification.

This invention relates to an improved construction of an anti-friction bearing for cars of the kind in which the car-axle engages and revolves an anti-friction disk.

The invention consists in the various features of improvement more fully pointed out in the claims.

In the accompanying drawings, Figure 1 is an elevation of the bearing; Fig. 2, a vertical longitudinal section thereof on the line *x x*, Fig. 4; Fig. 3, a vertical cross-section on line *y y*, Fig. 1; Fig. 4, a vertical cross-section on line *z z*, Fig. 1; Fig. 5, a horizontal section on line *o o*, Fig. 1. Fig. 6 is a longitudinal section through one end of the car-axle; Fig. 7, a section on line *q q*, Fig. 6; Fig. 8, a top view of journal-box *e'*; Fig. 9, an elevation of the invention, showing it applied to a four-wheel truck.

The letter *a* represents the car-platform slotted for the reception of the anti-friction disk or wheel *b*, which is placed between a pair of straps *a'* of the platform, Fig. 5. To each of these straps there are attached two upright guide-bars *c c'*, which are vertically movable in the journal-boxes *d* of the anti-friction disk *b*, such boxes being slotted for the reception of the bars. Below the straps *a'* the front bars *c* engage in like manner the slotted journal-box *e'* of the car-wheel *e*. These front bars are extended below the car-bottom, so as to be able to receive the box *e'*, and they are connected at their lower ends to a suitable guard-rail *c''*. At the upper ends the bars *c c'* are connected to suitable arched guards *c''*. The axle *e''* of the car-wheel *e* is provided with a collar *e''* in contact with and revolving the disk *b*. Below this collar there is a curved cross-arm *f*, that supports the platform *a* by spring-bolts *f'*. To the cross-arm *f* there are attached two front and two rear bars *g*, carrying bolts *g'*, to which the journal-boxes *d* of the anti-friction disks *b* are rigidly secured.

It will thus be observed that during the motion of the car it is free to jolt on the spring-bolts *f'*, taking the guide-bars *c c'* with it. These bars will thus play up and down in the journal-boxes *d* and *e'*. The latter,

however, will always maintain their proper relative position, and though properly supported will not be effected by or participate in the jolting motion of the car.

Between the collar *e''* and the curved arm *f* I interpose a curved dust-shield *h*. The collar *e''* consists, essentially, of a steel tube *e''*, Fig. 6, having a downwardly-bent flange *e''* in front and an upwardly-bent flange *e''* at the rear. The collar incloses a rubber tube or packing *i*, surrounding the axle *e''*. The flange *e''* is provided with elongated slots *e''*, through which pass screw-bolts *e''*, by which the collar is attached to the wheel *e*. Thus it will be seen that all the parts are properly connected and that still a yielding attachment is formed between the car-wheel and its axle. The rubber packing is entirely inclosed and all the parts turn together.

In Fig. 9 the invention is shown to be applied to a two-wheeled truck. Here the journal-boxes *d*, in place of being attached to the bolts *g'*, are attached to a continuous or common arm *j*, extending from one box to the other. This common arm is furthermore utilized to support the car-platform *a* by the spring-bolts *f'*.

What I claim is--

1. The combination of guide-bars *c* with a friction-disk *b* and car-wheel *e*, having boxes *d e'* engaged by such bars, spring-bolts *f'*, depending from the car-body, a cross-arm *f*, connected therewith, and upwardly-extending bars *g*, connected to the cross-arm and supporting the box *d*, substantially as specified.

2. The combination of a vertically-movable car-body with guide-bars *c*, projecting above and below the car-bottom, guards *c''*, that connect the upper ends of such bars, friction-disk *b* and car-wheel *e*, having boxes *d e'* engaged by the bars, and with spring-bolts *f'*, depending from the car-body, and a cross-arm connected therewith and supporting the box *d*, substantially as specified.

3. The combination of friction-disk *b* with a collar *e''*, engaged thereby and consisting of rubber packing *i* and tube *e''*, having slotted flange *e''* and with wheel *e* bolted to said flange, substantially as specified.

CARL F. BUSCHNER.

Witnesses:

F. V. BRIESEN,
A. JONGHMANS.