(No Model.)

C. F. BUSCHNER.

ANTI-FRICTION BEARING FOR CARS.

No. 458,723. Patented Sept. 1, 1891.

Fig. 1.

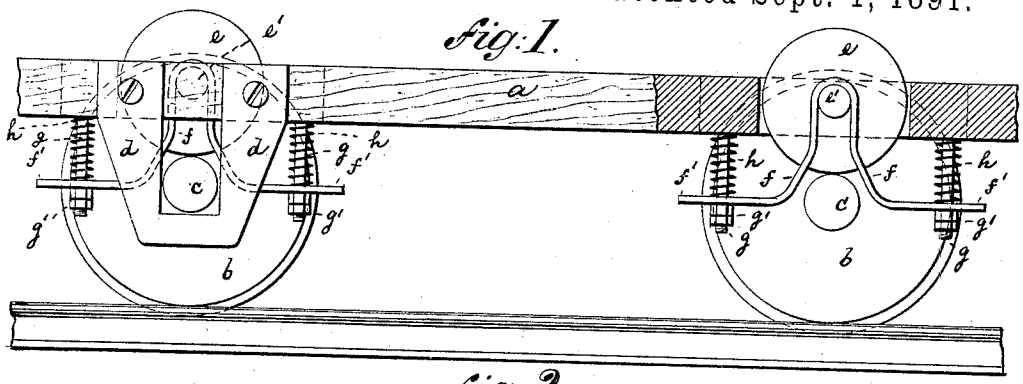


Fig. 2.

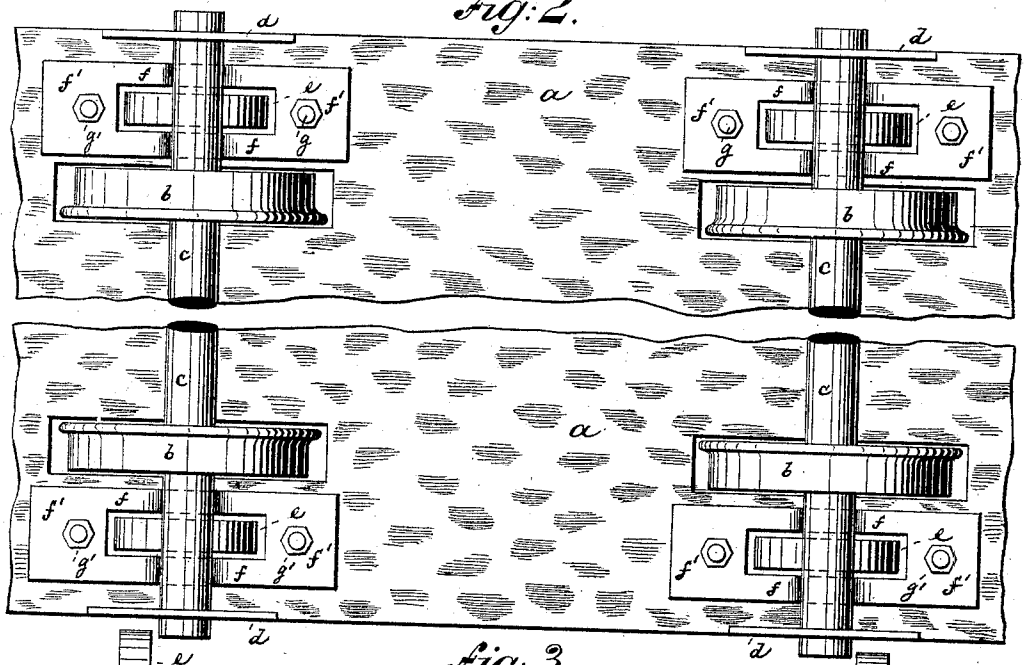
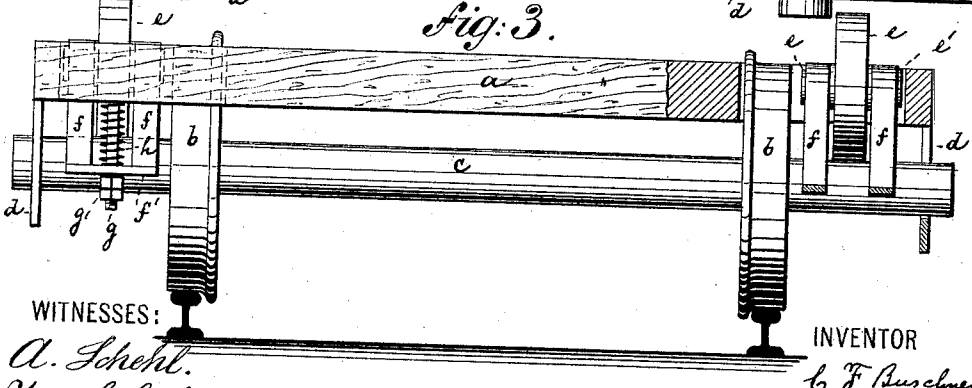


Fig. 3.



WITNESSES:

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ANTI-FRICTION BEARING FOR CARS.

SPECIFICATION forming part of Letters Patent No. 458,723, dated September 1, 1891.

Application filed June 2, 1891. Serial No. 394,855. (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, of which the following is a specification.

This invention relates to an anti-friction bearing more particularly designed for supporting the axles of four-wheeled cars, such as horse-cars and the like.

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

In the accompanying drawings, Figure 1 is a side view, partly in section, of my improved anti-friction bearing; Fig. 2, a bottom view thereof; and Fig. 3, a front view, partly in section, of the same.

The letter *a* represents the floor of a car, slotted, as usual, for the admission of the wheels *b*. These wheels are fixed upon their axles *c*, ending in journals that are received by the slotted hangers *d*. Above each axle the floor *a* is provided with a second slot for the admission of an anti-friction disk or wheel *e*, against which the axle *c* bears directly. Each disk *e* is provided with two laterally-projecting journals *e'*, which are engaged by a slotted strap *f*. The strap *f* is of inverted-U-shaped form, as shown, to straddle the journals *e'* at the top. At the bottom the strap terminates in two horizontal arms or lugs *f'*. These lugs are perforated for the passage of the attaching pins or bolts *g*, depending downwardly from the floor *a*, and on which the strap has a free vertical play. The pins *g* are embraced by the coiled springs *h* above the straps and by nuts or heads *g'* below the straps. The slot in each strap *f* extends from one arm *f'* upward around the journal *e'* and down to the other arm. Thus a central space is formed in which the disks *e* may turn freely, Fig. 3.

In use the revolution of the axles *c* will cause them to slowly revolve the disks *e*. The journals *e'* of these disks revolve in the U-shaped straps *f*, that prevent lateral displacement. Any jolting or vertical motion is taken up by the springs *h*. Thus a simple and effective anti-friction bearing is produced applicable to single axles, in contradistinction to trucks or double axles.

What I claim is—

1. The combination of car-axles *c* and wheels *b* with U-shaped slotted straps *f* and with anti-friction disks *e*, having journals *e'*, embraced by and turning in said straps, substantially as specified.

2. The combination of car-axles *c* and wheels *b* with U-shaped slotted straps *f*, provided with laterally-projecting perforated arms *f'*, and with the spring-bolts *g*, on which the straps have a vertical play, and anti-friction disks *e*, having journals *e'* embraced by and turning in said straps, substantially as specified.

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