No. 761,649. PATENTED JUNE 7, 1904.

S. A. BEMIS.

WEAR TAKE-UP DEVICE FOR RAILWAY CAR TRUCKS.

APPLICATION FILED OCT. 5, 1903.

NO MODEL.

Fig. 1.

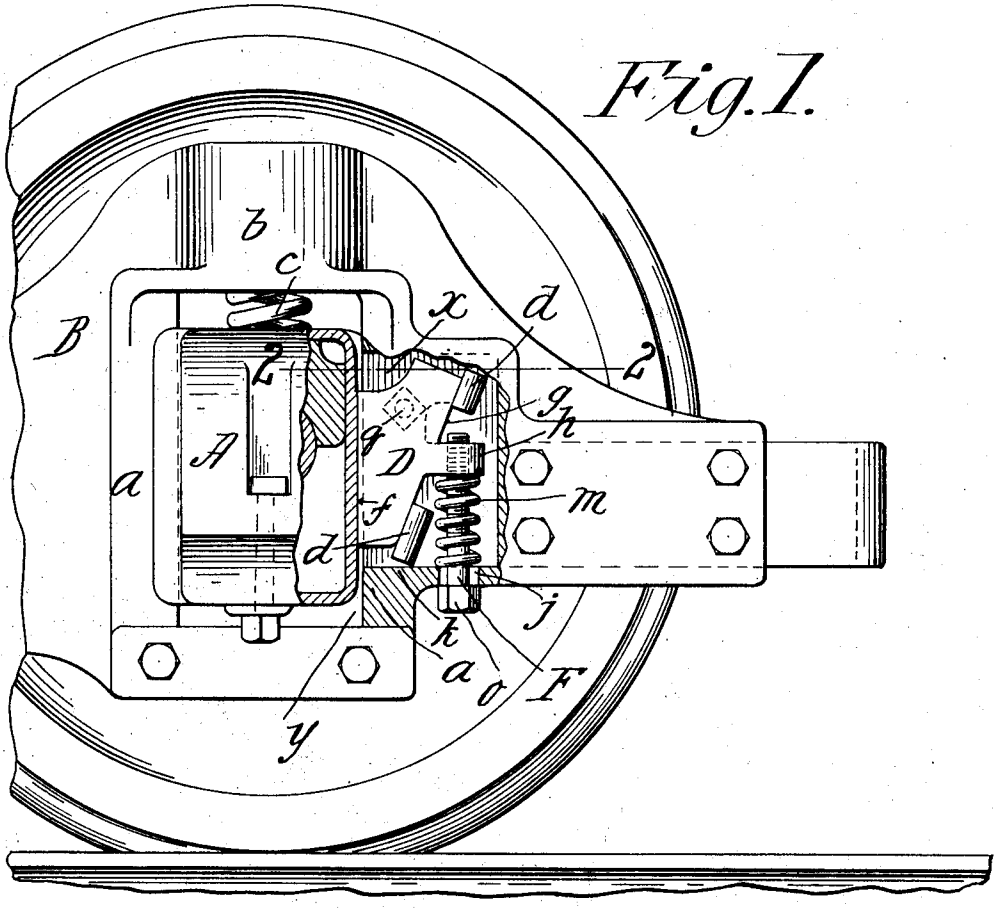


Fig. 2.

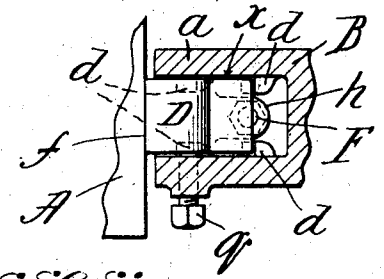
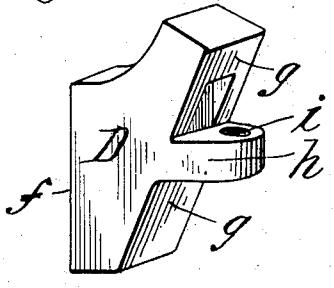


Fig. 3.



Witnesses:
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No. 761,649. Patented June 7, 1904.

UNITED STATES PATENT OFFICE.

SUMNER A. BEMIS, OF SPRINGFIELD, MASSACHUSETTS, ASSIGNOR TO BEMIS CAR TRUCK COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

WEAR-TAKE-UP DEVICE FOR RAILWAY-CAR TRUCKS.

SPECIFICATION forming part of Letters Patent No. 761,649, dated June 7, 1904.

Application filed October 5, 1903. Serial No. 175,886. (No model.)

To all whom it may concern:

Be it known that I, SUMNER A. BEMIS, a citizen of the United States of America, and a resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Wear-Take-Up Devices for Railway-Car Trucks, of which the following is a full, clear, and exact description.

This invention relates to improvements in railway-car trucks, and more particularly those of a class in which the side frame, or what is sometimes termed the "yoke-frame," is formed with inverted-U-shaped portions or yokes embracing and spring-supported on the journal-boxes of the truck and movable vertically relatively to the boxes, the vertically-separated members comprised in the yoke portions of the frame having engagements for their vertical guidance on the front and rear sides of the journal-boxes.

The particular object of this invention is to provide in and as a part of the yoke-frame a member which is adjustable and which may have imparted thereto an adjusting movement substantially horizontally, so that the inner face thereof, which in substance constitutes one of the guiding-walls of the yoke, may be positioned properly closely to the journal-box to acquire the best conditions for freedom and play without undue lash or shucking movement of the yoke-frame relatively to the journal-box, and so that after protracted use and the chafing of the parts having relatively the sliding and guiding movements one on the other have occasioned wear or distortion of such relatively operating parts such undue conditions may be rectified or compensated for; and the invention consists in the constructions and combinations of parts comprised in the yoke of the truck-frame for operation with reference to the vertical sides of the journal-box, all substantially as hereinafter fully described, and set forth in the claims.

In the drawings, Figure 1 is a side elevation, on a comparatively large scale, showing the journal-box for a car-wheel axle and the end portion of the truck or yoke frame, comprising one of the yokes thereof, equipped with the present improved adjustable take-up member. Fig. 2 is a horizontal sectional view as taken on the line 2 2, Fig. 1. Fig. 3 is a perspective view of the adjustably-movable take-up member for the yoke-frame.

In the drawings, A represents the journal-box, and B the yoke portion, of a yoke or truck-frame, the same comprising the vertical separated members *a a* and the uniting top member *b*, this yoke being usually spring-supported on the top of the journal-box, where it embraces the aforementioned vertical members *a a*, having the facing inner walls thereof separated by a distance a little greater than the horizontal dimension of the journal-box from front to rear, all whereby the yokes of the yoke-frame may have freely a degree of up-and-down movement as permitted by the cushioning action of the spring or springs *c* duplicated at each box of the truck.

The yoke has one of the vertical members thereof chambered out, as indicated at *x*, and is constructed within the chamber with members *d d*, which have faces toward the yoke-opening *y* inclined downwardly toward such opening within the yoke, and, as specifically produced, these members are in the form of upper and lower pairs of lugs integrally cast on the inner walls of the chambered yoke member *a*, with separations between the individual lugs both as they are regarded as horizontal pairs and as vertical pairs. This formation and arrangement while not being an essential one is a desirable and advantageous one, giving all requisite extent and continuity of inclined bearing-surface and yet not constituting elements of obstruction to the disposition and desired movements of the adjustably-movable member D of and for the yoke. This member D has a vertical face *f* adjacent the journal-box side and an opposite inclined face *g*, the obliquity of which corresponds to that of the incline faces of the lugs *d d*, on which the face *g* has bearing, and the said block or member D has the extension-lug *h* projecting horizontally beyond its inclined face *g*, such lug having a vertical screw-tapped hole *i* therethrough.

F represents a screw the threaded shank of which is extended through a slot or elongated perforation *j* in the lower wall *k* of the yoke which forms the bottom boundary and inclosure for the aforementioned chamber *x* and has a screw-threaded engagement in the tapped perforation *i* in the extension-lug *h* of the adjacent block D, while the head *o* of the said screw is in bearing against the under side of the wall *k*. A spiral spring *m* encircles the shank of the screw and is in compression between the inner upper surface of the wall *k* and the bottom of the extension-lug *h*.

q indicates a set-screw threading through one of the side walls for the chamber in the yoke and sitting by its inner end against the side of the adjacent block D and having the effect when set up to crowd the block to bind against the wall at the opposite side of the chamber in the yoke.

When the truck is being set up and the yoke-frame brought to place with its yokes embracing the journal-boxes, the block D is adjusted for the proper freedom of vertical play and guidance of the yoke relatively to the journal-box, and the screw *q* is set to hold the parts against accidental displacement.

After the use of the truck incidental to which the vertical members *a a* of the yoke have chafing movements relatively to the vertical sides of the journal-box and whereby both the journal-box sides and the adjacent faces of the yoke become worn and unduly loose and in some cases where by reason of shocks and violent impacts relatively between the yokes and journal-boxes the parts become more or less distorted better conditions may be acquired by loosening the set-screw *q* and turning the vertical screw *o* to move the wedge-shaped wear-block D vertically, whereby by its impingement against the inclined faces of the members *d* it will be horizontally set inwardly and closer to the journal-box, whereupon the set-screw *q* may be again tightened.

The object of the spring is to prevent the wedge-shaped block from gravitating and the screw *o* therewith, more especially at times when it is desired to, by a rotation of the screw, cause the block to move upwardly relatively to the inclined members *d d* for increasing the freedom or width of opening within the yoke.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a railway-car truck of the character described, the combination with a journal-box, of an embracing truck-frame yoke having a recess in one of its vertical members opening toward the journal-box and having an inclined surface within said recess, a block having the vertical face and the inclined face and having an extension-lug with a screw-hole therein, and an operating-screw extending through an elongated perforation in a portion of the yoke and screw-engaging in the hole in said extension-lug.

2. In a railway-car truck of the character described, the combination with a journal-box, of an embracing yoke-frame having the chamber *x* therein, opening toward the box and provided therein with an inclined surface, and having in one of the walls of said chamber a horizontally-elongated perforation *j*, the wedge-shaped block arranged as described, the screw *o* having its shank extended through said elongated perforation and engaging said block, and a spring in compression between the block and one of the horizontal walls of said chamber.

3. In a railway-car truck of the character described, the combination with the journal-box, of an embracing truck-frame yoke constructed with the chamber *x* opening toward the box having in its bottom wall the horizontally-elongated perforation *j* and interiorly provided with the upper and lower pairs of incline-faced lugs which are separated as regards the upper and lower pairs thereof, and as regards the individual ones of both such pairs, the headed screws *o* extending vertically through the hole *j*, the block D having the straight, vertical face toward the journal-box and having the inclined opposite face contacting on the inclines of said members *d d*, and having the extension *h* provided with a vertical screw-hole in which the shank of said screw engages, the spring *m* in compression between said extension *h* and the base-wall of the chamber in said yoke, and the horizontally-applied set-screw *q* threading through the side wall of the chambered yoke and exerting binding pressure transversely against the said block, substantially as and for the purposes set forth.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses, this 25th day of September, 1903.

SUMNER A. BEMIS.

Witnesses:

A. V. LEAHY,

WM. S. BELLOWS.