(No Model.)

W. S. SHARPNECK.

ANTI-FRICTION JOURNAL BOX.

No. 402,988. Patented May 7, 1889.

Fig. 1.

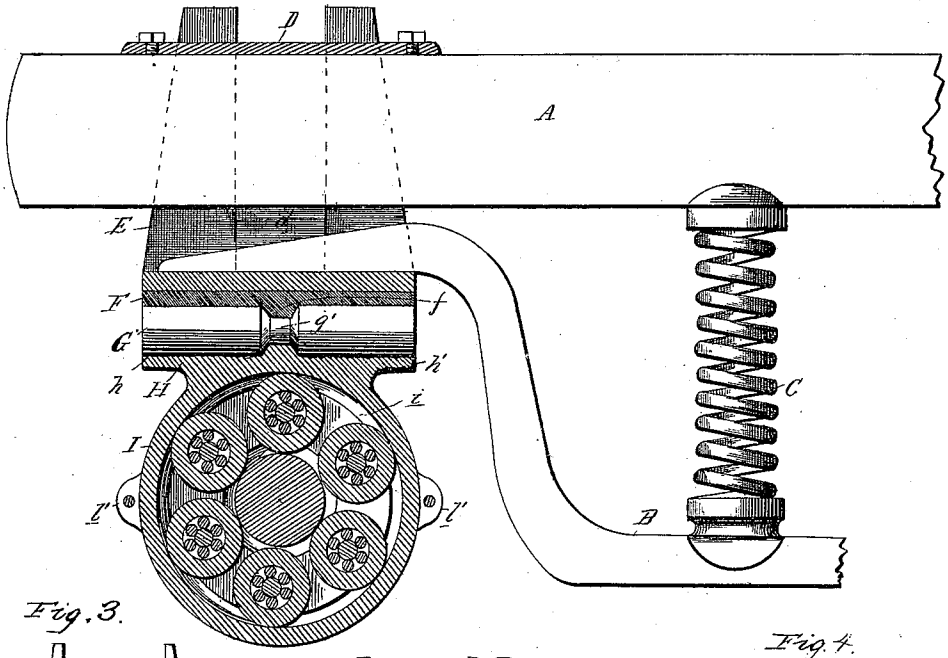
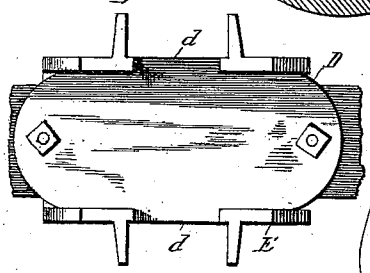


Fig. 3.



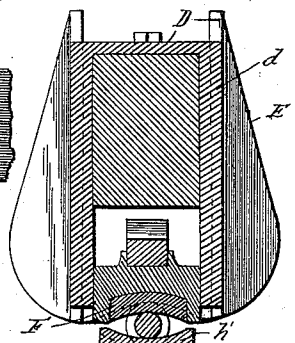


Fig. 4.

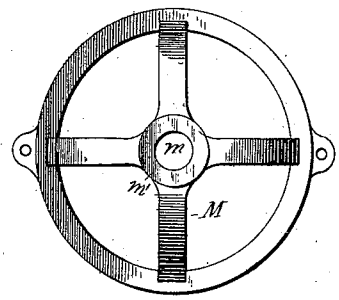
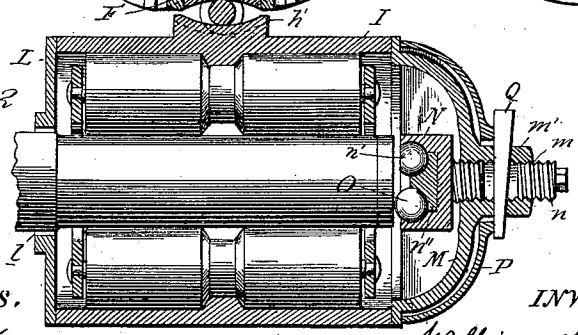


Fig. 2.



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WILLIAM S. SHARPNECK, OF CHICAGO, ILLINOIS.

ANTI-FRICTION JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 402,988, dated May 7, 1889.

Application filed September 3, 1888. Serial No. 284,472. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. SHARPNECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Anti-Friction Journal-Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention is an improvement on the devices shown in my Patents Nos. 373,756 and 392,465; and it consists in the peculiar construction, arrangement, and combination of parts hereinafter more particularly described and shown, and then definitely pointed out in the claims.

In the accompanying drawings, which show one form of my invention, Figure 1 is a vertical cross-section of a journal-box constructed according to my improvement; Fig. 2, a vertical section at right angles to that shown in Fig. 1. Fig. 3 is a plan of part of the timber of the truck, a saddle attached thereto, and a yoke working thereon; and Fig. 4 is an end view of spider detached from the shell of the journal-box.

Referring now to the details of the drawings, A represents one of the timbers of a truck, B the equalizing-bar, and C a spring, of ordinary construction. Bolted fast to the timber A is a saddle, D, extending down both sides, as shown at *d* in Fig. 2, and forming a guide for the reversed pedestal or yoke E, having at its lower end a recess, in which fits a hardened plate, F, preferably of steel, having a rib, *f*, beneath which is a grooved roller, G, resting in a recess, *h*, in a bracket, H, which recess has a rib, *h'*, corresponding to the rib *f* in the plate and fitting the groove *g* in the roller. The bracket is set upon or forms part of a shell, I, which contains a series of anti-friction grooved rollers, J, which are similar to those shown in my aforesaid patent, No. 373,756, and it is therefore unnecessary to describe them. These rollers surround the axle K, of ordinary or any suitable construction.

The shell I has a rib, *i*, engaging with the grooves in the roller, and is cylindrical, as shown in Fig. 1, except for the bracket H, which is mounted thereon or cast therewith and has at one end a head, L, having an aperture, *l*, to receive the axle and two ears, *l' l'*, which receive the bolts that fasten a spider, M, on the other end of the shell. This spider has a threaded hole, *m*, in its hub *m'*, in which is screwed the shank *n* of a bearing-block, N, having a groove, *n'*, to receive the ball O, which groove may be formed entirely in the face of the block, but is preferably formed partly in said block and partly in a removable hardened wearing-block, *n''*, fitted in a recess formed in said bearing-block. A cap, P, is fitted over the end of the spider and is held there by a key, Q, which passes through slots in the hub *m'* of the spider and the shank *n* of the bearing-block.

By the construction here shown I am enabled to simplify and lighten the box and its connections, and at the same time render the same more convenient and durable. The reversed pedestal and its connection allow of any desired motion of the box while passing over an obstruction, and the roller G allows of a sideward motion of the track over the journal-box or of the box under the truck, while the grooved collar and the ribs *f* and *h'* keep the parts in their proper relative position. The spider M forms a perfect means of keeping the bearing-block N in its proper position and prevents any tendency of the block to wabble under the end pressure of the axle.

By the use of the screw-shank *n* the proper position of the bearing-block can be readily obtained, and at the same time the wearing-block, if found to wear in the course of time, may be readily removed and a new one substituted.

What I claim as new is—

1. The combination, with a timber, A, of a car-truck, an equalizing-bar, B, a spring, C, between the two, and the journal-box thereof, of a reversed pedestal, E, supported by the journal and receiving the timber A and the equalizing-bar B, substantially as described.

2. The combination, with the timber A of a car-truck, an equalizing-bar, B, a spring, C, between the two, and the journal-box thereof, of a reversed pedestal, E, supported by the journal and receiving the timber A and the equalizing-bar B, and a saddle, D, embracing said timber and forming a guide for said pedestal, substantially as described.

3. The combination, with a timber of a car-

truck, and the journal-box thereof, and a saddle fastened to the timber, of a yoke receiving the saddle, and supported on a roller resting on said journal-box, and constructed to allow the timber to rise and fall therein under the pressure of the car, substantially as described.

4. The combination, with a journal-box having a recessed support, as the bracket H, having an upwardly-projecting rib, of a roller resting in said support, and having a groove receiving said rib, and supporting a pedestal having a downwardly-projecting rib fitting into the groove in said roller, substantially as described.

5. The combination, with the shell I, of the spider M, the bearing-block secured in the hub m' thereof, the cap P, and a fastening device, as the wedge Q, substantially as described.

6. The combination, with the saddle I and spider M, having a threaded aperture in its center, of the bearing-block N, having a threaded and slotted shank, a cap, P, and the wedge Q, substantially as described.

7. The combination, in a journal-box and with the axle and shell thereof, of a bearing-block having a wearing-block set therein and provided with a groove partly formed in said wearing-block and a ball running in said groove, substantially as described.

In testimony whereof I affix my signature, in presence of two witnesses, this 1st day of September, 1888.

WILLIAM S. SHARPNECK.

Witnesses:
A. P. BOYNTON,
S. B. BOYNTON.