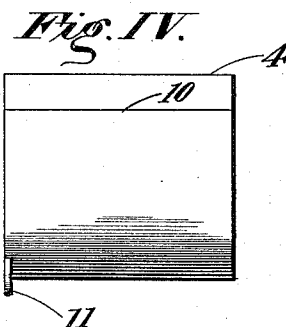
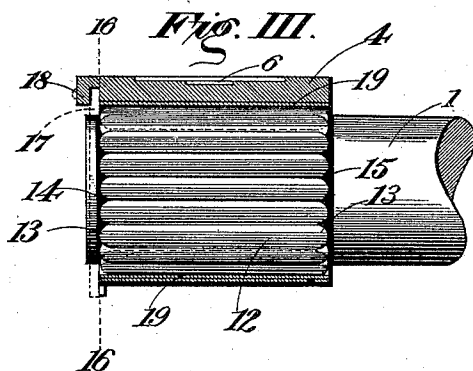
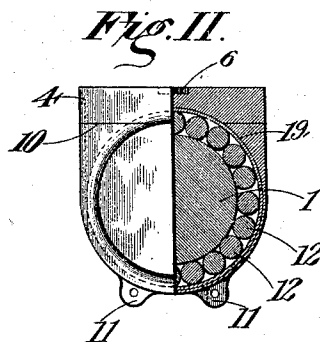
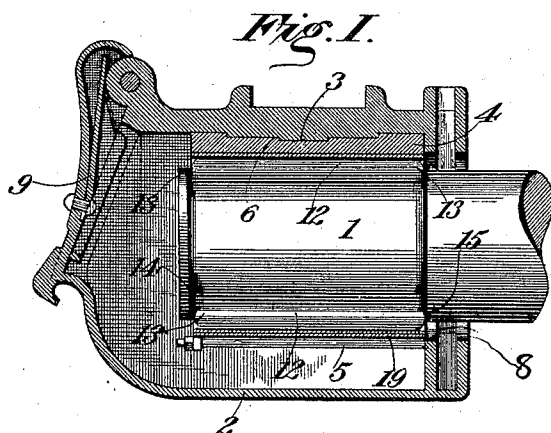


(No Model.)

E. S. DAUGHERTY.
JOURNAL BEARING.

No. 581,955.

Patented May 4, 1897.



WITNESSES

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EDWIN STOUT DAUGHERTY, OF PUEBLO, COLORADO, ASSIGNOR TO ALEXANDER MCGREGOR AND NORMAN MCKAY, OF SAME PLACE.

JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 581,955, dated May 4, 1897.

Application filed October 8, 1895. Serial No. 565,044. (No model.)

To all whom it may concern:

Be it known that I, EDWIN STOUT DAUGHERTY, of Pueblo, county of Pueblo, and State of Colorado, have invented certain new and useful Improvements in Journal-Bearings, of which the following is a specification, reference being had to the accompanying drawings.

My invention, though especially applicable to use in railway-cars, is likewise adapted to be employed in journal-bearings generally.

In the accompanying drawings, Figure I is a central vertical section of a railway journal-box shown by way of example, the journal-bearing being shown in elevation. Fig. II is a half end elevation and half vertical section of the roller box or case, rollers, and journal. Fig. III is a side elevation of a journal, showing the rollers grouped above the same and supported by the roller-box. Fig. IV is a side elevation of the roller-box detached.

Referring to the reference-numerals on the drawings, 1 illustrates, by way of example, one form of journal, and 2 a journal-box. The journal or outer box 2 may be made of any suitable construction, pattern, or design. It is provided with a lug or fillet 3, which may be cast or otherwise secured to the journal-box, as upon the upper side thereof.

4 indicates a roller-box made, preferably of highly-tempered pure copper, secured within the journal-box, as by rods 5, bolts, or the like, coaxially with the journal. It is provided with a recess 6, into which the fillet 3 fits and by which the roller-box is secured within the journal-box against the force of the end thrust of the journal. The roller-box may be made in one or two pieces, preferably the former, and may be introduced into the journal-box through the aperture 8. It may be withdrawn through the same opening and replaced as often as repairs may become necessary. A gate 9, hinged to the upper part of the journal-box, is provided for closing the opening and excluding dust.

When made of two sections, the roller-box is preferably divided on the line 10, (see Fig. II,) and the lower section may be secured in the journal-box, as by lugs 11, or by other suitable means.

Between the roller-box and the end of the journal I provide movable rollers 12, which completely fill the space between the journal and the roller-box and support the journal within the box. The rollers may be made of a variety of shapes, those illustrated in the drawings being of a general cylindrical form and provided with rounded ends 13, curved upon radii conformable to the radii of the fillets 14 and 15 of the journal. The length of rollers of this description should be somewhat less than the distance between the fillets 14 and 15 to allow for the end thrust of the journal. The end of the journal, however, may be cut off square on the line 16 16, when a butt-plate 17, bolted, as indicated, to lugs 18 on the roller-box in front of the journal, may be provided for retaining the rollers in their proper position. The roller-box preferably has a casing of tempered copper 19, which may be shrunk upon the roller-box. When the casing 19 is worn out, the casing may be reheated and the casing 19 renewed.

Having thus described my invention, what I claim is—

The combination with a journal-box and journal, of a roller-box made of highly-tempered pure copper, a cooperating fillet and recess upon and in the journal-box and roller-box, respectively, and antifriction-rollers of pure highly-tempered copper intermediate the journal and roller-box, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

EDWIN STOUT DAUGHERTY.

Witnesses:

W. T. STRAIT,
THOMAS N. JONES.