No. 617,719. Patented Jan. 17, 1899.

W. CORVER.

JOURNAL BEARING.

(Application filed Apr. 9, 1898.)

(No Model.)

Fig. 1.

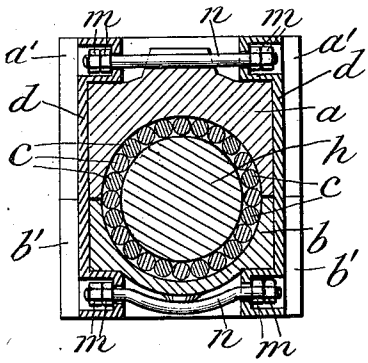


Fig. 3.

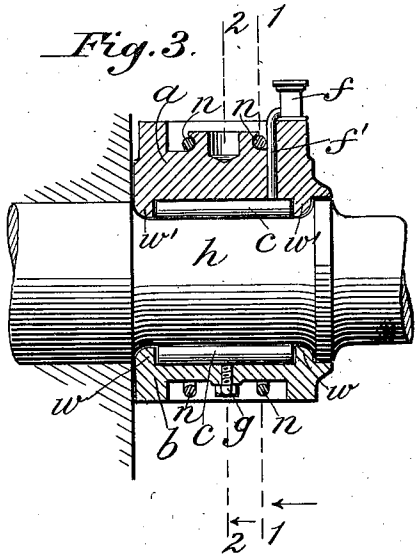


Fig. 2.

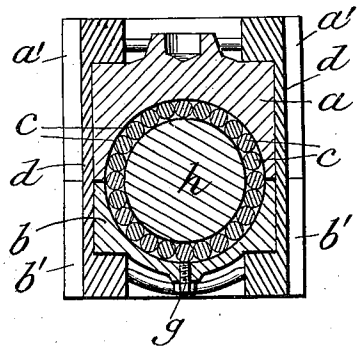
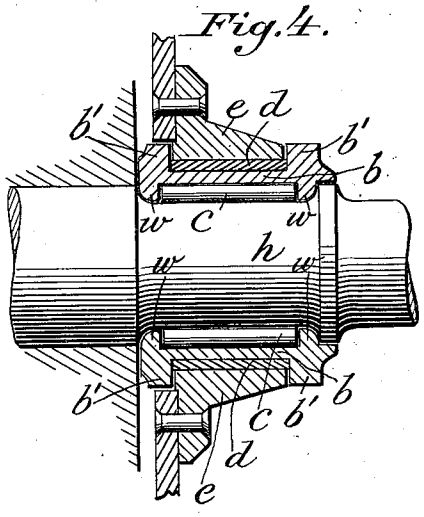


Fig. 4.



Witnesses

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WOUTER CORVER, OF MEESTER CORNELIS, JAVA.

JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 617,719, dated January 17, 1899.

Application filed April 9, 1898. Serial No. 677,093. (No model.)

To all whom it may concern:

Be it known that I, WOUTER CORVER, a citizen of the Netherlands, residing at Meester Cornelis, Java, have invented certain new and useful Improvements in Journal-Bearings; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in journal-bearings, and in particular to a roller-bearing especially adapted for supporting journals which carry heavy loads—such, for instance, as the journals of locomotives, rail-road-cars, and the like.

The object of my invention is to provide a journal-bearing of extreme simplicity and durability which will be readily accessible and removable for repairs and which can be used with advantage on heavily-loaded journals.

With these objects in view and some others which will be obvious to those skilled in the art my invention consists in the features, details of construction, and combination of parts, which will first be described in connection with the accompanying drawings and then particularly pointed out in the claim.

In the drawings, Figure 1 is a transverse section of a journal-bearing embodying my invention, taken on the line 1 1 of Fig. 3; Fig. 2, a similar view taken on the line 2 2 of Fig. 3; Fig. 3, a longitudinal vertical section, partly in elevation; and Fig. 4, a horizontal section.

Referring to the drawings, *a* is a cap, and *b* a pillow, which when placed together surround the journal *h*, a series of rollers *c* being placed around the journal between it and the said cap and pillow, the weight of the journal resting primarily upon the said rollers and being transmitted from them to the pillow.

In order to hold the rollers against movement longitudinally, while at the same time allowing the said rollers to revolve freely, the cap and pillow are each provided with inward-extending flanges *w w'* at each end of the rollers *c*, the said flanges of the cap and pillow forming annular inward-projecting ribs or collars, which are rounded on their outer edges, as shown. The journal is larger in diameter at each end of the journal-bearing, and the larger diameters are connected with the smaller intermediate diameter by rounded portions, which correspond to the rounded outer edges of the cap and pillow, as shown in the drawings. By this construction the journal is permitted to revolve on rollers, while at the same time it cannot transmit any longitudinal strain to the latter, because the rounder portions of the journal above referred to will come into contact with the respective rounded edges of the cap and pillow. Thus the friction of the journal cannot be increased by forcing the rollers longitudinally and thereby creating more friction between the ends of the rollers and the flanges of the cap and pillow.

In the drawings I have shown my improved journal-bearing as employed for a car-journal, the cap and pillow being held together by a clamp device formed of two side plates *d*, held together by draw-bolts *n*, provided with nuts *m*, as will be clear from Fig. 1. By removing these nuts the side plates may be taken off and the bearing thus readily removed.

The cap and pillow are each provided on their lateral faces with vertical flanges *a' b'*, which extend beyond and pass to each side of the clamp side plates *d*, whereby they when clamped together, as described, may be put into place in the box-guides *e*, the arms of which are received between the vertical flanges *a' b'*.

In order to supply the bearing with a lubricant, an oil-hole is provided, and into this extends a tube *f'*, leading from an oil-receptacle *f*.

In order to permit the ready cleaning of the bearing to remove the grit and dirt which may accumulate in the same, a hole is provided at the lowest portion of the pillow *b*, into which is inserted a screw *g*. When it is desired to clean the bearing, the screw *g* may be removed and petroleum, coal-oil, or other desired cleaning liquid poured into the lubricant-receptacle *f*, whereupon by rotating the journal the bearing will be washed out and the dirty fluid will escape through the hole at the bottom. After this is done the screw *g* may be returned to its place.

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

In a journal-bearing, the combination, with a cap and pillow, each provided with inward-extending flanges, the said flanges forming annular ribs, said cap and pillow also having outward-extending vertical flanges, of a plurality of rollers between said annular ribs, a pair of side plates arranged to clamp the cap and pillow together, said side plates passing between the vertical ribs, and means for drawing said plates together, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WOUTER CORVER.

Witnesses:
B. S. RAWDEN,
SIDNEY B. EVERETT.