

(No Model.)

I. ELLISON.
ROLLER BEARING.

No. 552,752.

Patented Jan. 7, 1896.

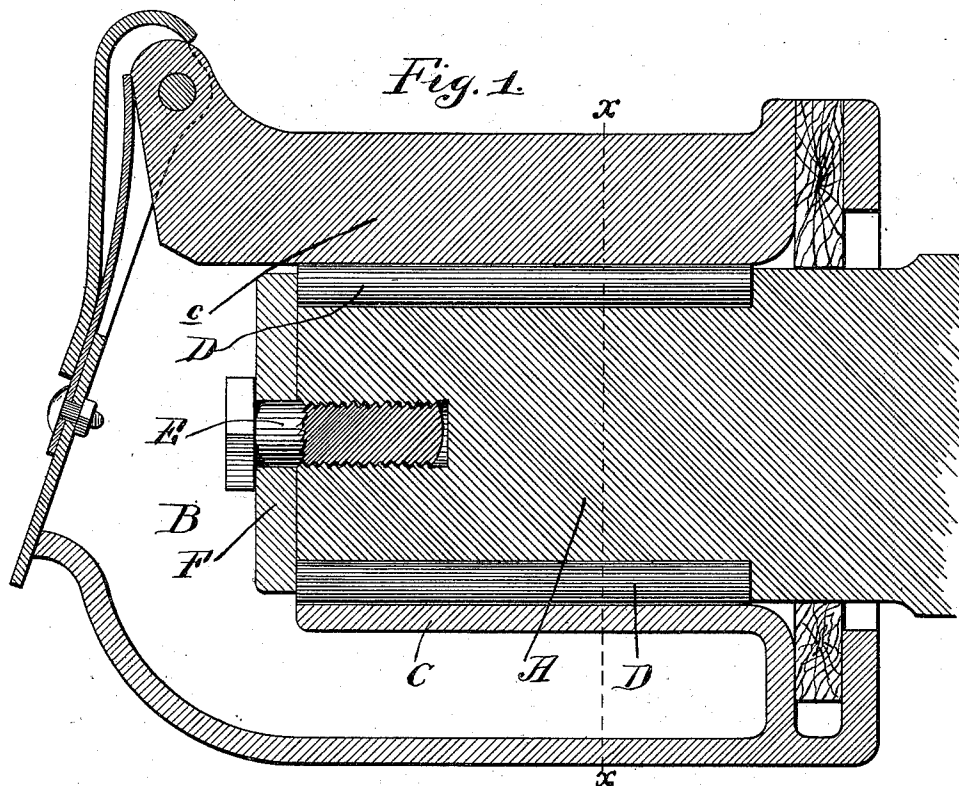
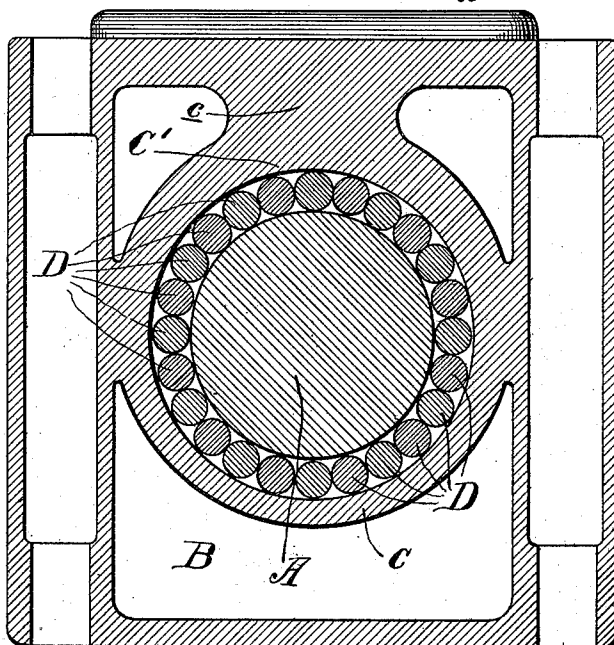


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ISAAC ELLISON, OF WAUKESHA, WISCONSIN.

ROLLER-BEARING.

SPECIFICATION forming part of Letters Patent No. 552,752, dated January 7, 1896.

Application filed August 30, 1895. Serial No. 561,025. (No model.)

To all whom it may concern:

Be it known that I, ISAAC ELLISON, a citizen of the United States, residing at Waukesha, in the county of Waukesha and State of Wisconsin, have invented certain new and useful Improvements in Roller-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.

This invention relates to an improvement in roller-bearings; and it consists in the construction and arrangements of parts hereinafter described, and definitely pointed out in the claim.

The invention is adapted more particularly for car-axle boxes.

In the drawings, wherein like letters of reference designate corresponding parts in both views, Figure 1 is a longitudinal vertical section. Fig. 2 is a sectional elevation on the line *x x*, Fig. 1.

In the drawings, A designates the axle and B the box. This box is of the usual form with the exception that it is formed with a curved partition C spanning the box below the axle, and it has a curved bearing C' above the axle, which also spans the box and is connected at its top by a web *c*. The edges of the two portions C C' are integral or otherwise united. The interior of the parts C C' is curved to form a circular bearing and is open both at front and rear, as shown, so that foreign matter can escape from the rear and oil or other lubricant or washing liquid be inserted from the front. Interposed between the circular bearing and axle are a series of rolls D, said rolls abutting at the end against the shoulder on the axle.

The outer end of the axle has a longitudinal threaded aperture therein, in which fits a bolt E.

F designates a cap-plate of a diameter greater than that of the axle and less than

the interior diameter of the bearing, its edge extending beyond the axle. This plate has a smooth inner face and a central aperture through which the bolt loosely passes, so that the plate may have a turning or rotary movement on the bolt. The rolls abut with their outer ends against the projecting inner face of the plate F and are thereby held in place. By loosely mounting the plate the bolt is prevented from unscrewing when the movement of the axle is reversed. It is to be understood that the plate may be otherwise secured.

When it is desired to remove a roll it is only necessary to unscrew the bolt and remove the plate.

It will be noted that the usual packing can be placed in the box and oil may be used when desired.

I am aware that slight changes in the construction can be made without departing from the nature and principle of my invention.

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

The roller bearing herein described consisting of an axle box having a curved partition C at or near its base spanning the box and connected to the sides thereof, the curved top bearing C' united to the edges of the partition and by a suitable web to the top of the box, a journal, a series of rolls between the bearing and journal, a cap plate of a diameter less than the internal diameter of the bearing and greater than the diameter of the journal, and means for loosely mounting the plate on the end of the journal, substantially as described.

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

ISAAC ELLISON.

Witnesses:

H. A. TULLAR,
C. E. WARDROBE,