(No Model.)

H. HUBBARD.

JOURNAL BEARING.

No. 565,988. Patented Aug. 18, 1896.

FIG. 1

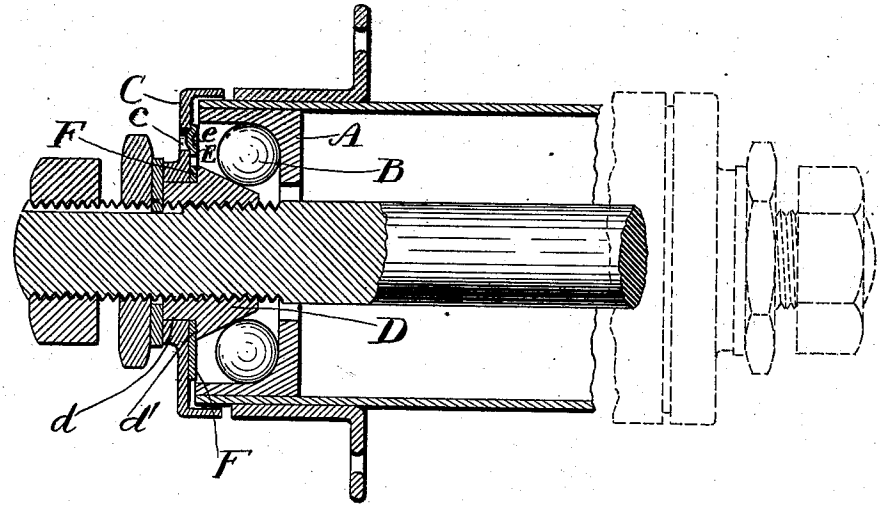


FIG. 2

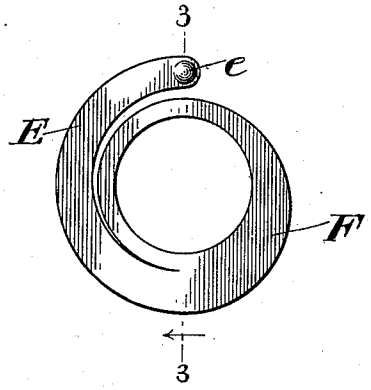
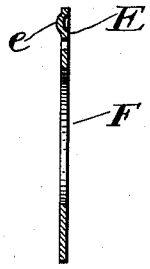


FIG. 3



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

HENRY HUBBARD, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO STAMPING COMPANY, OF SAME PLACE.

JOURNAL-BEARING.

SPECIFICATION forming part of Letters Patent No. 565,988, dated August 18, 1896.

Application filed December 27, 1895. Serial No. 573,501. (No model.)

To all whom it may concern:

Be it known that I, HENRY HUBBARD, 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 Journal-Bearings, of which the following is a specification.

The present invention relates more particularly to the device for closing the opening in the journal-box through which the oil or other lubricant is introduced; and its object is to provide an improved device for this purpose.

The invention consists in the features of novelty that are particularly pointed out in the claims hereinafter, and in order that it may be fully understood I will describe it with reference to the accompanying drawings, which are made a part of this specification, and in which—

Figure 1 is an axial section of a journal-bearing embodying the invention. Figs. 2 and 3 are respectively a plan view and an edge view of the device for closing the lubricating-opening.

As shown in the drawings, the "journal-box," so called, is made up of a ring A, upon which the outer race for the balls B is formed, and a part C, which is fixedly and permanently attached to the cone D and forms at once the prehensible device by which the cone is adjusted and the cap for excluding dust from the bearing. In order that it may more perfectly fulfil this last-named function, it is provided at its periphery with a flange which projects over the end of the other member of the journal-boxes. This part C is preferably made in the form of a ring, which is pressed onto a reduced portion *d* of the cone, so that the two move together as a single member. Through this part C of the journal-box is formed an opening *c*, through which oil or other lubricant may be applied directly to the journal. The device for normally closing this opening consists of a tongue E, which proceeds from the periphery of a ring F, which latter is also forced onto the reduced portion *d* of the cone, so as to be incapable of turning thereon, and is furthermore clamped between the part C and the shoulder *d'* which results from the reduced portion aforesaid. This ring and its integral tongue E are formed of a piece of sheet-steel tempered so as to give the tongue the necessary elasticity, and the tongue is preferably provided with a protuberance *e*, that projects into the opening *c*, the normal shape of the ring F and its tongue E being such that normally the tongue rests flat against the inner surface of the journal-box and the protuberance *e* effectually closes the opening *c*. In order to introduce the oil, it is simply necessary to insert the nozzle of the oil-can through the opening *c* far enough to force the spring-tongue E away and uncover the opening, the tongue being of sufficient length to permit of the deflection necessary for this purpose without passing its limit of elasticity. In order to gain this length within the limits of the interior of the journal-box, the tongue is curved and proceeds from the ring in a circumferential direction, so as to embrace a greater or less number of degrees of a circle.

While I have shown the closing device as being applied to an opening formed through the part of the journal-box which is, in fact, the dust-cap, still I desire to have it understood that in its broadest aspect my invention is not limited thereto, but, on the contrary, comprehends any spring-tongue which proceeds in a circumferential direction from the ring which it joins and by which it is held in place.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. The combination with a journal and a journal-box having a lubricating-opening, of a ring through which the journal passes and a spring-tongue, integral therewith, proceeding therefrom in a circumferential direction, and having a part that closes the lubricating-opening, substantially as set forth.

2. The combination with a journal, of a part carried thereby and forming a part of the journal-box, said part having a lubricating-opening, a ring secured to said part, and a spring-tongue proceeding from the ring in a circumferential direction and having a part that closes the lubricating-opening, substantially as set forth.

3. The combination with a journal and a journal-box having a lubricating-opening, of a sheet-metal ring through which the journal passes, a curved spring-tongue proceeding from the periphery thereof in a circumferential direction, and having a part closing the lubricating-opening, the ring and tongue being in substantially the same plane, and means securing the ring to the part of the journal-box through which the lubricating-opening is formed, substantially as set forth.

4. In a journal-bearing the combination of a cone, a dust-cap secured thereto and having a lubricating-opening formed therethrough, a ring also secured to the cone so as to be incapable of rotating thereon, and a curved tongue proceeding from the periphery of the ring, said tongue being arranged against the inner surface of the dust-cap and covering the opening thereof, substantially as set forth.

HENRY HUBBARD.

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