(No Model.)

L. GOULLIOUD.

DUST GUARD FOR CAR AXLE BOXES.

No. 404,701. Patented June 4, 1889.

Fig. 1

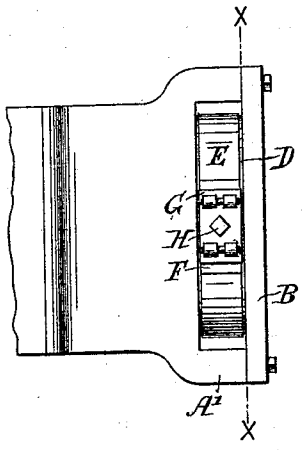


Fig. 2

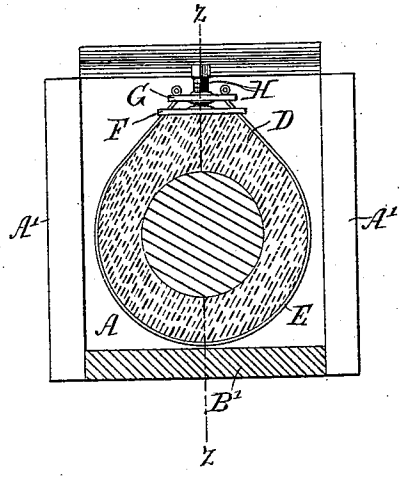
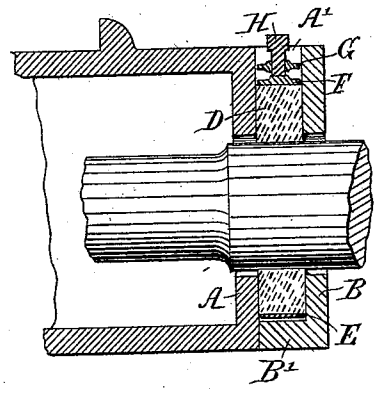


Fig. 3



Witnesses

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UNITED STATES PATENT OFFICE.

LOUIS GOULLIOUD, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR TO THE UNION BEARING AND LUBRICATOR COMPANY, OF PORTLAND, MAINE.

DUST-GUARD FOR CAR-AXLE BOXES.

SPECIFICATION forming part of Letters Patent No. 404,701, dated June 4, 1889.

Application filed January 4, 1889. Serial No. 295,478. (No model.) Patented in Canada January 31, 1889, No. 30,680.

To all whom it may concern:

Be it known that I, LOUIS GOULLIOUD, of the city of Montreal, in the District of Montreal and Province of Quebec, Canada, have invented a certain new and useful Improved Dust-Guard for Car-Axle Boxes, (for which I have already obtained Letters Patent of Canada, No. 30,680, bearing date January 31, 1889;) and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention, although denominated a "dust-guard," and serving to keep dust and grit out of the axle-box, is primarily intended to prevent the escape of liquid lubricant.

It may be thus briefly described: I propose to face up perfectly true the outside face of the back plate of the axle-box, and to secure to its projecting sides by bolts or other suitable means a second plate having its corresponding or inner face trued up in the same way as the back plate of the box. On the under side of this second plate is formed a projecting rib fitting in between the projecting sides of the axle-box and butting up against the face of the back plate. In both these plates are formed the usual oval openings for the axle to pass through. Between these two planed surfaces is mounted upon the axle the dust-guard proper. This I form of a substance which must combine the qualities of non-permeability, so that no liquid lubricant can pass through it, and non-susceptibility to wear, so as to do away with the necessity of devices for keeping the guard in contact with the axle, and at the same time have the power of expansion, so that any compressive force exerted on the edges or periphery will force out the surfaces. I have by experience found that cork will fill all these conditions, and I therefore propose to form my dust-guard proper of that substance. The disk or plate is perforated so as to fit on the axle. This cork disk or plate will have both surfaces trued up and smoothened so that they shall be perfectly in contact with the trued-up faces of the plates when the disk is expanded laterally by the compression of the periphery. This disk or plate is usually formed with its lower part semicircular, or nearly so, the sides converging from about the center or axis and ending in a flat top. Upon this is set a plate, through the ends of which and of another plate some little distance above it pass the ends of a thin metal compression band closely surrounding the disk. Compression is exerted by the band upon the disk through the action of a set-screw passing through the top plate and working on the lower one, so as to draw the ends of the strap together.

For full comprehension of the invention, reference must be had to the annexed drawings, forming part of this specification, in which—

Figure 1 is a top view of the rear part of an axle-box embodying my invention; Fig. 2, a sectional elevation taken on line *x x*, Fig. 1; and Fig. 3, a similar view on line *z z*, Fig. 2.

Similar letters of reference indicate like parts.

As no particular construction of the axle-box is claimed, no allusion will be made to it further than to say that A is the back plate, pierced in the usual way for the axle, and with projections A′. Its rear face is planed to a perfectly true surface.

B is the additional or supplementary plate with projection B′ on its lower edge, fitting in between the side projections A′, and having its front face trued up to correspond with the rear face of A. It has of course an opening identical with that in A for the passage of the axle.

D is a disk or plate of cork, having its faces worked perfectly smooth to correspond with the meeting faces of A and B, and mounted on the axle. It is preferably of the shape shown in Fig. 2, and partially encircled by a metal band or compression-strap E.

F is a plate resting on the top of D, and G a plate set at some little distance above F, through both of which the ends of the strap E pass.

H is a set-screw working through the top plate G and pressing upon the plate F, so that by its action the disk D will be compressed, thus giving a perfectly tight joint round the axle and against the meeting faces of A and B.

What I claim is as follows:

1. The combination, with the back plate of

an axle-box, of a supplementary plate secured thereto, leaving space between them, the inner faces of both plates being trued up, a cork disk mounted on the axle, and a band partially surrounding the periphery of the disk and provided with a device for tightening it up on same, all substantially as herein set forth.

2. The combination, with the back plate A of an axle-box, of the plate B, secured to same, single cork disk D, mounted on axle between plates, strap E, encircling such disk, plates F and G, and set-screw H, all substantially as herein described.

LOUIS GOULLIOUD.

Witnesses:
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