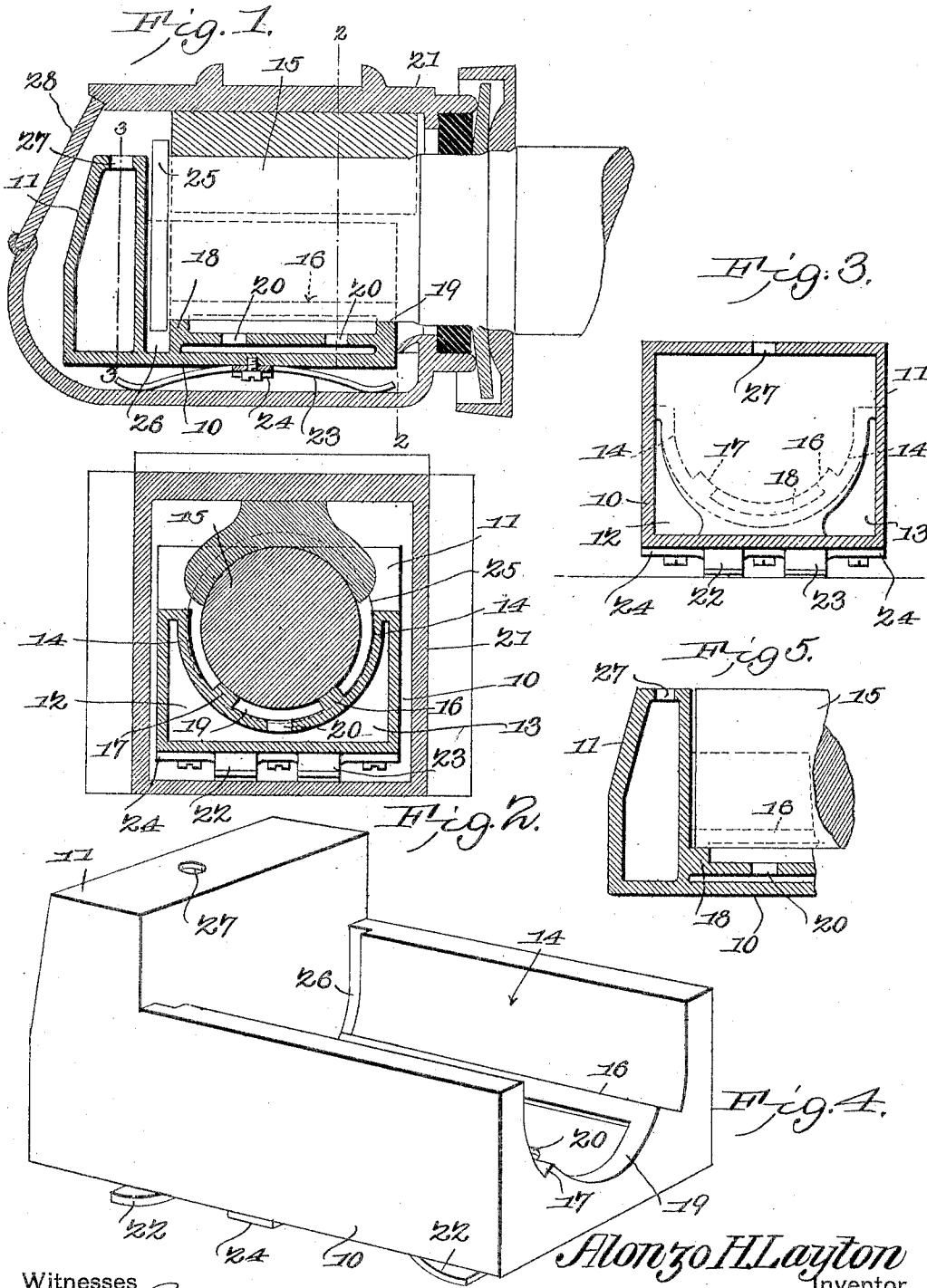


No. 797,129.

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A. H. LAYTON.
LUBRICATING JOURNAL.
APPLICATION FILED JUNE 7, 1905.



Witnesses

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LUBRICATING-JOURNAL.

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To all whom it may concern:

Be it known that I, ALONZO H. LAYTON, a citizen of the United States, residing at Alliance, in the county of Boxbutte and State of Nebraska, have invented a new and useful Lubricating-Journal, of which the following is a specification.

This invention relates to journal-bearings, more particularly to the bearings of railway-car axles, and has for its object to provide a simply-constructed and easily-applied device whereby the bearing may be continuously and automatically lubricated and the lubricant supplied only so fast as needed, thus insuring uniform application of the lubricant and prevent wasteful use of the same.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation, it being understood that the invention is not necessarily limited thereto, as various changes in the shape, proportions, and general assemblage of the parts may be resorted to without departing from the principle of the invention or sacrificing any of its advantages.

In the drawings, Figure 1 is a longitudinal sectional elevation of the improved device applied to a railway-car-axle bearing. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a transverse section of the improved device on the line 3 3 of Fig. 1. Fig. 4 is a detached perspective view, enlarged, of the improved device. Fig. 5 is a sectional detail illustrating the construction when applied to axle-bearings not having end flanges.

The improved device comprises a hollow casing 10, having at one end a reservoir 11 for a supply of lubricating material and communicating by ports 12 13 at the sides with the interior of the casing. The upper face 14 of the casing 10 is concaved in general conformity to the axle-bearing represented at 15, but of greater radius, and disposed in this concaved portion are spaced longitudinal ribs 16 17, the ribs connected at the ends by transverse ribs 18 19, curved to correspond to the

bearing. The longitudinal ribs 16 17 are also curved transversely in conformity with the bearing, so that the latter bears uniformly upon all the ribs. Feed-apertures 20 connect the interior of the casing 10 with the area within the ribs 16 17 18 19, so that the lubricant will flow therethrough, as will be obvious.

Between the casing 10 and the adjacent face of the axle-box 21 are springs 22 23, operating to hold the casing yieldably in engagement with the bearing and secured by a keeper 24.

When the device is applied to a bearing having an end flange 25, as in Figs. 1 and 2, a "well" 26 is formed in the casing to receive the same, as shown; but when applied to bearings not having end flanges the well portion will not be required, as illustrated in Fig. 5.

A feed-aperture 27 is formed in the reservoir 11, through which the lubricant is introduced by means of any suitable spout inserted through the usual detachable cap member 28 of the axle-box. By this simple construction with the reservoir 11 filled with lubricating material, such as the grade of oil usually employed for axle-bearings, the same will flow by gravity through the ports 12 13 and thence up into area defined by the ribs 16, 17, 18, and 19 and against the bearing. As the bearing rotates a limited amount of the lubricant is carried upward and beneath the bearing member 29; but only a sufficient amount of the lubricant will be thus carried to properly lubricate the bearing, leaving the surplus in the cavity within the ribs. Thus no waste of the lubricant occurs, and any small surplus which may be carried past the ribs 16 or 17, as the case may be, will run back into the portion of the concave recess in the member 10 and be there retained and not flow over the sides of the same.

The device will operate with equal efficiency without regard to the direction of motion of the journal.

The "head" of oil in the reservoir 11 will insure the constant and uniform supply to the distributing recess or cavity within the bearing-ribs, as will be obvious.

Having thus described the invention, what is claimed is—

1. In a device of the class described, a casing having a communicating lubricant-reservoir at one end extending above the same and with a convex upper surface having longitudinal bearing-ribs spaced apart and connected at

the ends by transverse bearing-ribs curved to conform to the journal to be lubricated and with feed-apertures in said casing within the area defined by said ribs.

2. In a device of the class described, a journal-box, a journal disposed in said box and with a bearing between the journal and the top of the box, a casing having a communicating lubricant-reservoir at one end and extending above the same and with a convex upper surface having longitudinal bearing-ribs spaced apart and connected at the ends

by transverse bearing-ribs curved to conform to said journal and bearing beneath the same, said casing having feed-apertures within the area defined by said ribs.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ALONZO H. LAYTON.

Witnesses:

LUTHER A. RUTLEDGE,
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