

(No Model.)

J. T. CONNELLY.

AXLE LUBRICATOR.

No. 480,318.

Patented Aug. 9, 1892.

Fig. 1.

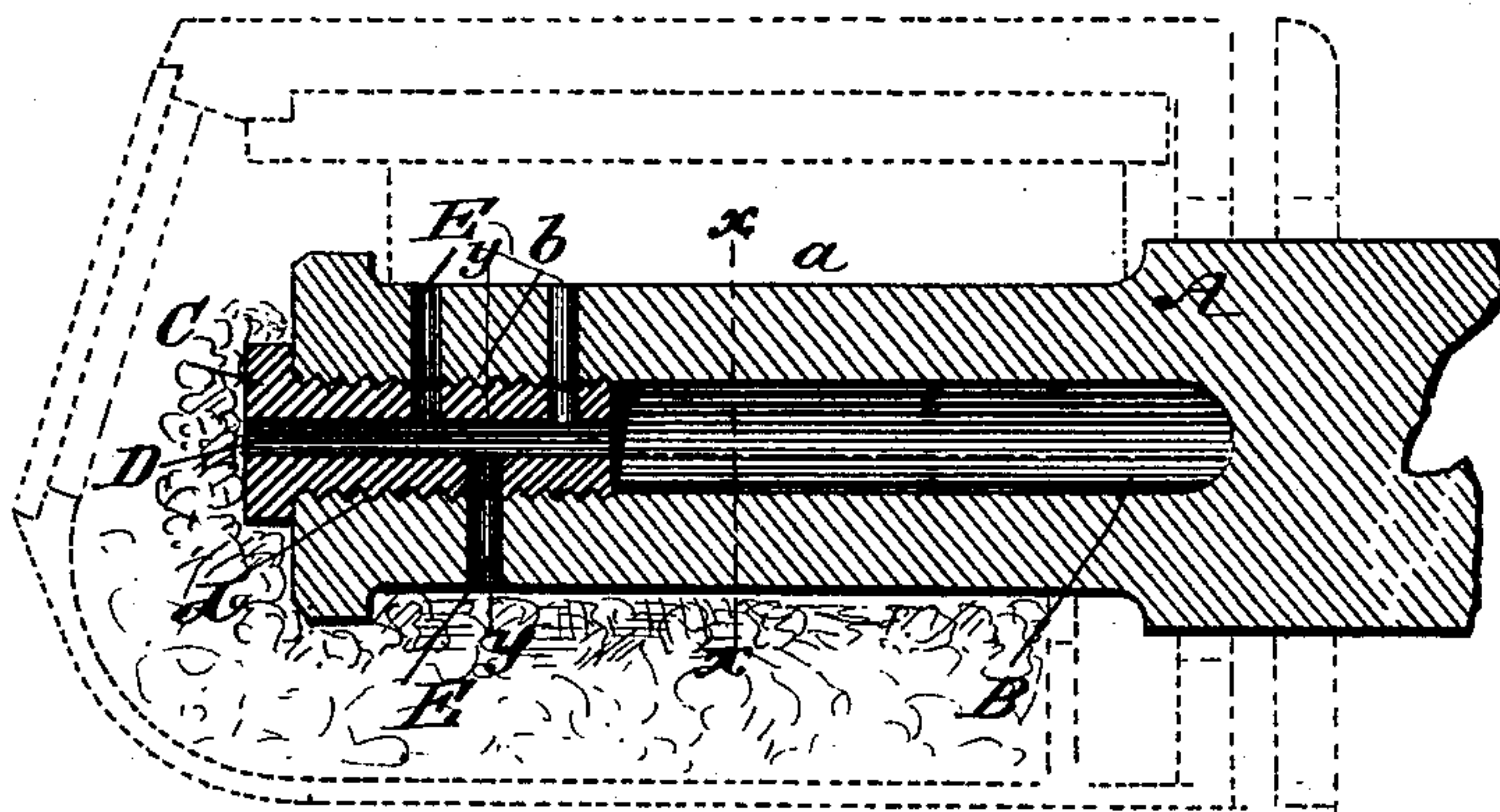


Fig. 2.

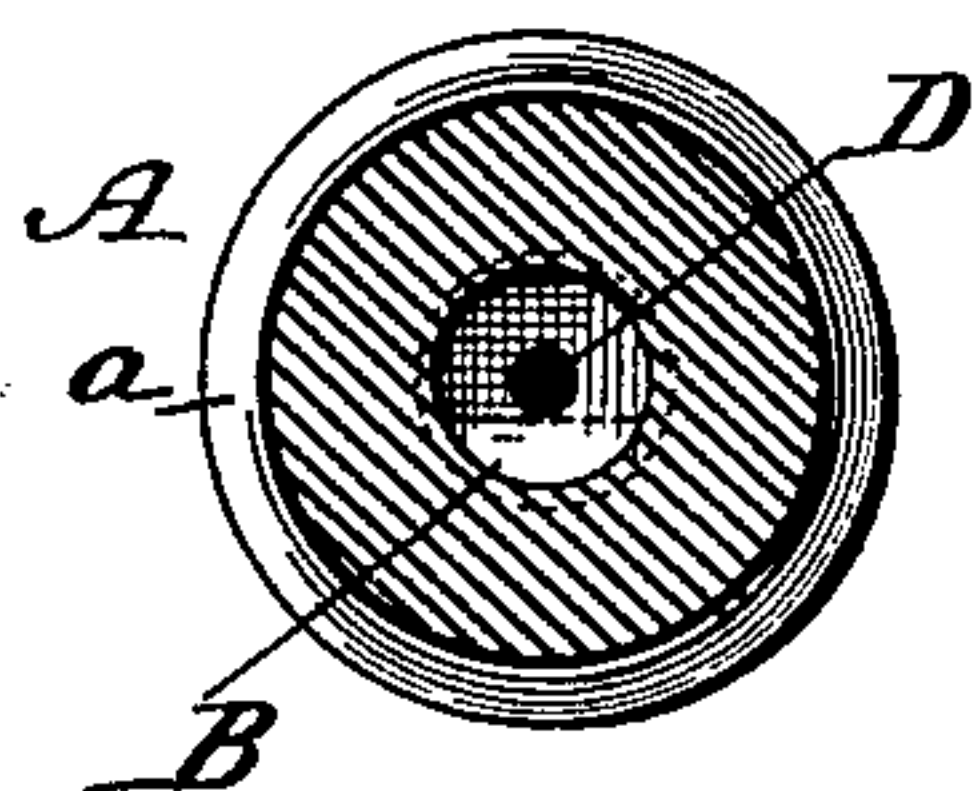


Fig. 3.

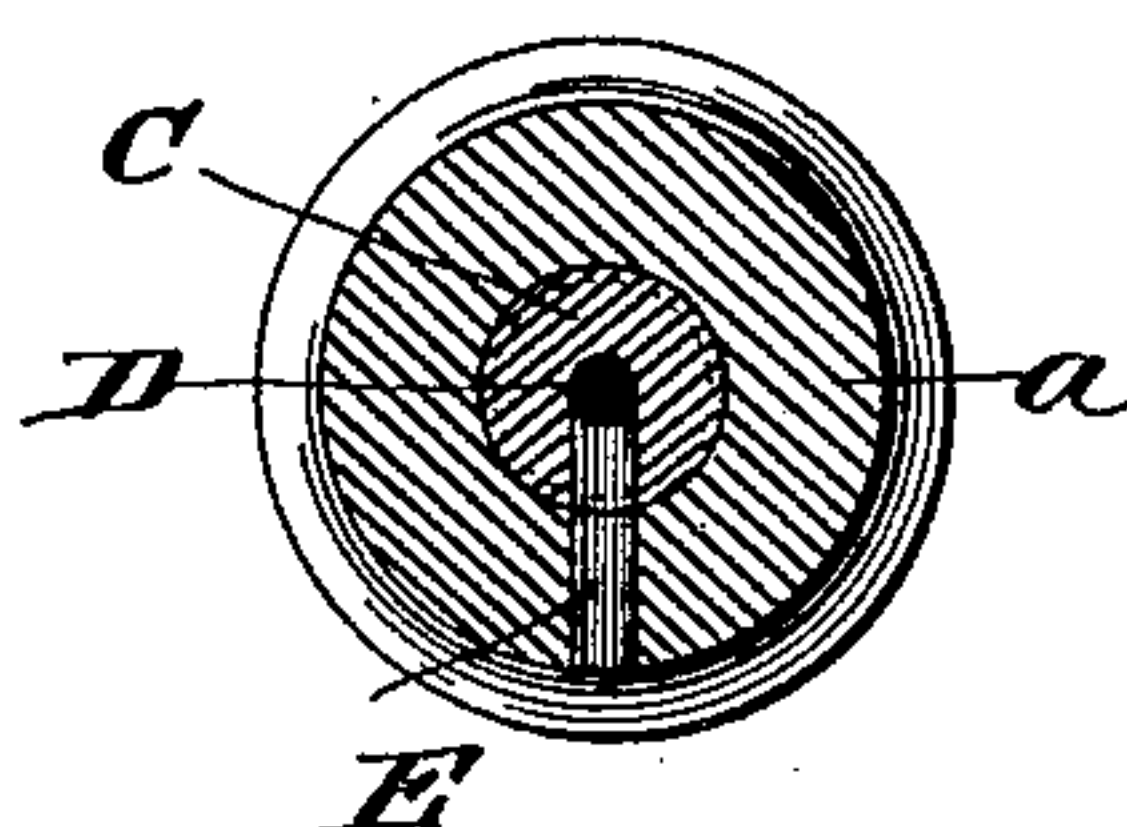


Fig. 4.

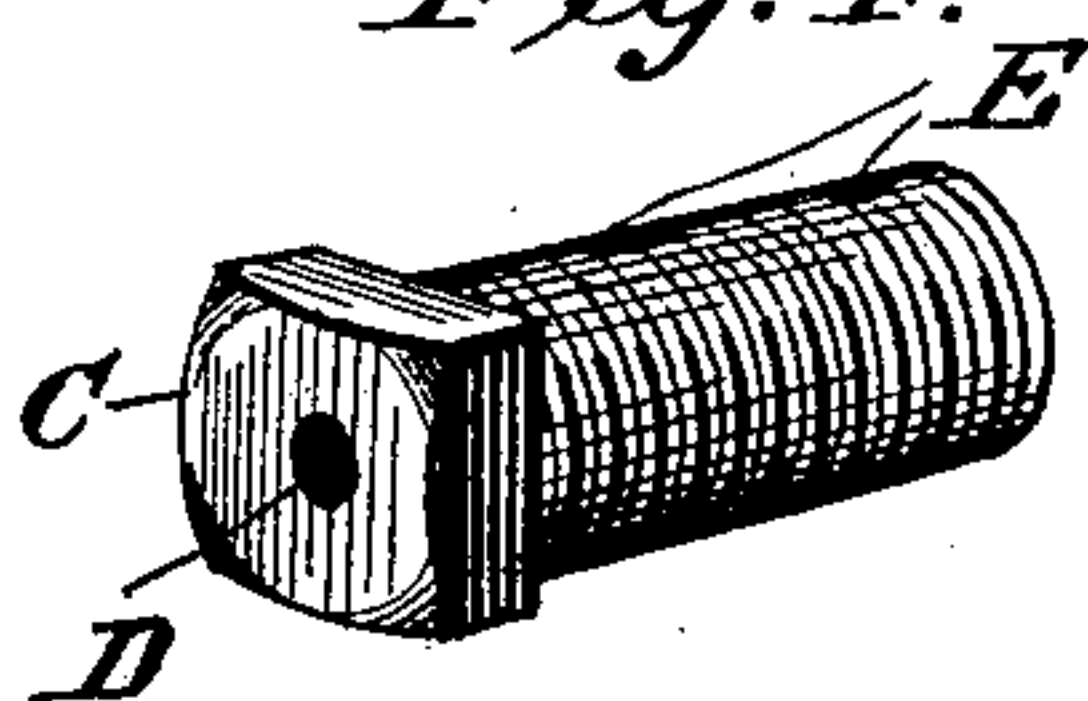
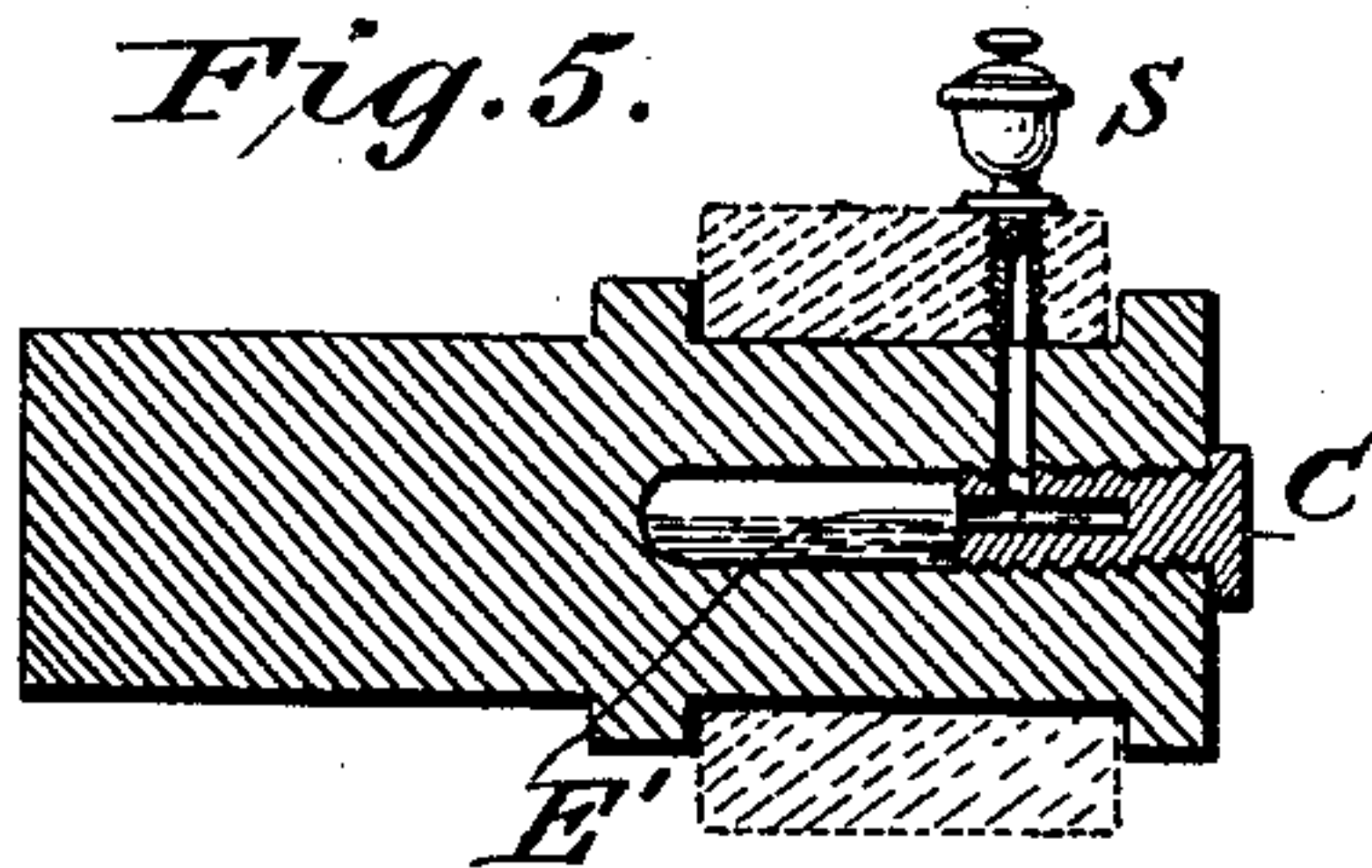


Fig. 5.



Witnesses
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JAMES THOMAS CONNELLY, OF MILTON, PENNSYLVANIA.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 480,318, dated August 9, 1892.

Application filed January 23, 1892. Serial No. 419,058. (No model.)

To all whom it may concern:

Be it known that I, JAMES THOMAS CONNELLY, a citizen of the United States, residing at Milton, in the county of Northumberland and State of Pennsylvania, have invented certain new and useful Improvements in Car-Axle Journals; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to car-axle journals; and it has for its object to provide a simple and improved construction whereby the journal is at all times perfectly lubricated and in which liability of heating is entirely overcome.

A further object of the invention is to provide an axle-journal of this character which will possess advantages in point of inexpensiveness and durability in construction, effectiveness in operation, and general efficiency.

To this end my invention consists, substantially, in the construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the claim.

In the drawings, Figure 1 is a central longitudinal sectional view of one end of a car-axle embodying my invention. Fig. 2 is a transverse sectional view on the line xx , Fig. 1, looking outwardly. Fig. 3 is a similar view on the line yy , Fig. 1. Fig. 4 is a detail perspective view of the screw-plug. Fig. 5 is a view similar to Fig. 1, illustrating the application of my invention to crank-pins for slide-rods and other journals.

Corresponding parts in the figures are denoted by the same letters of reference.

Referring to the drawings, A designates one end of a car-axle, which is preferably formed with a reduced bearing-surface a , as usual. Centrally within the axle end is provided a longitudinal bore B, extending from the extreme end of the axle to slightly beyond the inner end of the bearing-surface a and having at its outer portion interior screw-threads b .

C designates a plug for closing the outer portion of the bore B, and to this end it has external screw-threads d . The plug C is provided with a central longitudinal bore D, of greatly less diameter than the bore B, for the purpose hereinafter set forth, and extends from end to end of the plug. One or more

bores E are provided through the journal and at coincident points through the plug, said bores extending from the bore D to the periphery of the axle.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains. The axle being journaled in boxes provided with saturated waste, the oil or other lubricant from the latter enters the bore B through the bore D and finds an outlet through the bores E, a certain quantity of the lubricant being at all times held within the bore B (in practice about one-third the capacity of the latter) and serving the office of keeping the journal cool. This result is attained by reason of the bore D being of greatly less diameter than the bore B, and communication between the latter and the periphery of the axle being had only through the bore D the lubricant when it reaches the level indicated in dotted lines, Fig. 1, finds no outlet, the remaining quantity being thus permanently retained within the bore B, for the purpose mentioned.

It will be obvious that my invention is also applicable to crank-pins for slide-rods and like journals, as illustrated in Fig. 5. In this instance the outer end of the plug is closed and an oil-cup S is carried by the bearing for the journal and has its outlet in a direct transverse plane with a bore E'. Thus as the journal revolves the latter bore coincides with the outlet of the oil-cup and the lubricant passes therefrom to the interior of the journal; but when the bore is removed from the outlet the lubricant is deposited upon the periphery of the journal to lubricate the same.

I claim as my invention—

The combination, with a journal provided with a central longitudinal bore and with one or more transverse bores extending from said longitudinal bore to the periphery of the journal, of a plug secured in the open end of the longitudinal bore and provided with a central longitudinal bore of less diameter than the main bore of the journal and with one or more transverse bores coinciding with the corresponding bores of the journal, substantially as and for the purpose set forth.

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

JAMES THOMAS CONNELLY.

Witnesses:

WM. B. GALBRAITH,
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