

(No Model.)

H. G. FARR.  
SELF LUBRICATING AXLE.

No. 316,612.

Patented Apr. 28, 1885.

Fig. 1.

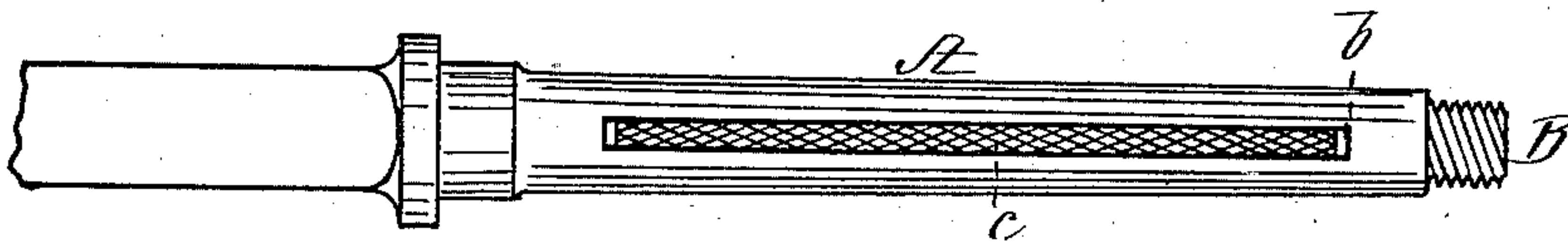


Fig. 2.

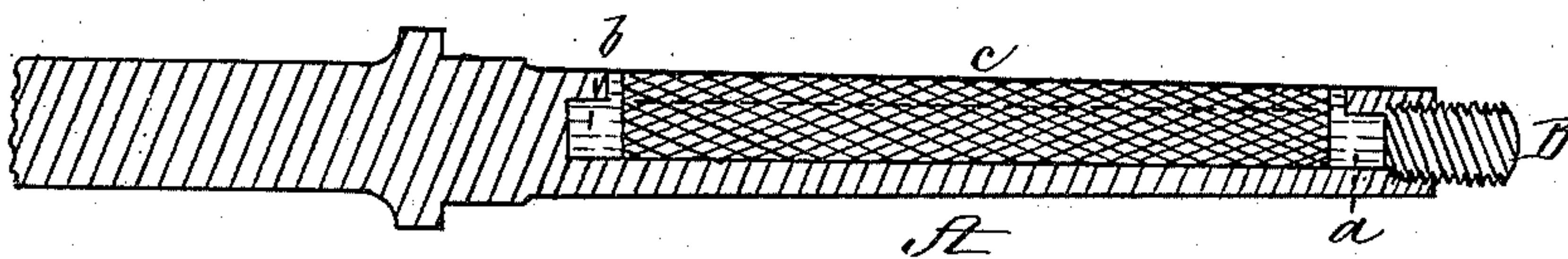


Fig. 3.

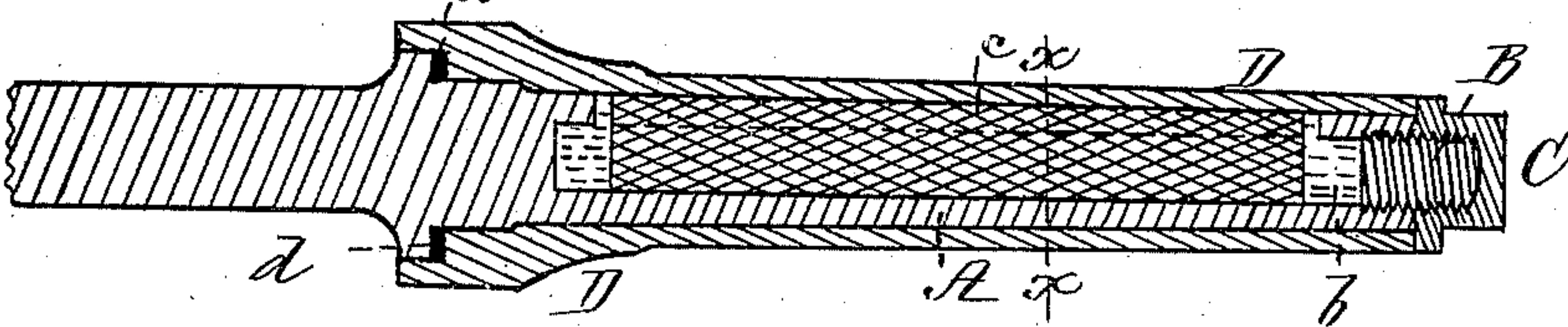
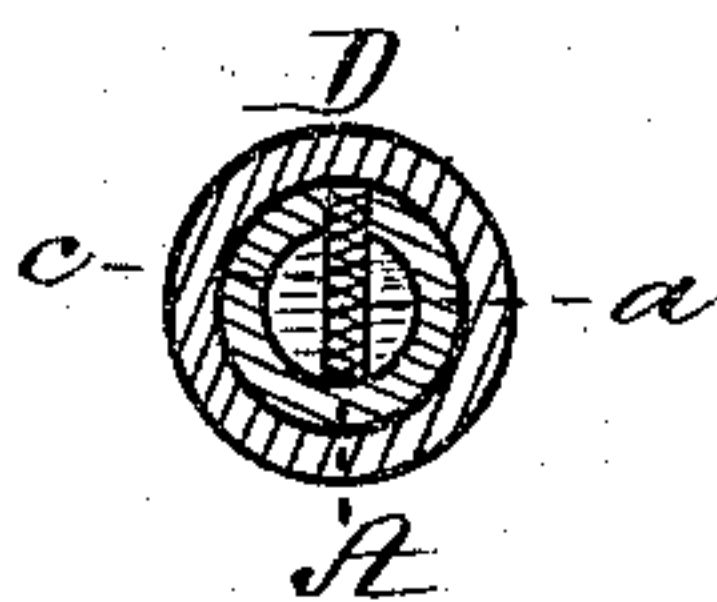


Fig. 4.



Witnesses,  
H. W. Stearns.  
W. P. Clough

Inventor,  
Hiram G. Farr,  
per H. W. Stearns  
Atty

# UNITED STATES PATENT OFFICE.

HIRAM G. FARR, OF BOSTON, MASSACHUSETTS.

## SELF-LUBRICATING AXLE.

SPECIFICATION forming part of Letters Patent No. 316,612, dated April 28, 1885.

Application filed December 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, HIRAM G. FARR, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Lubricating Axles for Vehicles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan of the upper side of the journal of an axle constructed in accordance with my invention. Fig. 2 is a longitudinal section through the center of the same; Fig. 3, a similar section with the axle-box in place upon the axle; Fig. 4, a transverse section on the line *xx* of Fig. 3.

The aim of this invention is to reduce to a minimum the friction between the journal of an axle and the box or bearing of a wheel revolving thereon; and my present invention consists in a non-revolving vehicle-axle having its journal provided with a central chamber extending longitudinally therein for the reception of the lubricant, and having in its upper side a longitudinal slot communicating with the said chamber, for the reception of a fibrous or textile material, which serves as a wick, by which construction the lubricant is fed by capillary attraction in proper quantities to the interior of the wheel-box or hub revolving thereon, the interior of the outer end of the journal being provided with a screw-thread, into which fits a plug which projects beyond the journal, and has a nut turned thereover for holding the wheel on the axle, the screw-plug closing the end of the oil-chamber and preventing the escape of the oil in this direction.

In the said drawings, A represents the journal of a non-revolving vehicle-axle; *a*, a chamber bored centrally and longitudinally therein

for the reception of the lubricant, the interior of the outer end of the journal having a screw-thread for the reception of a screw-plug, B, which thus prevents the escape of the lubricant in this direction.

Extending through the upper side of the journal, and communicating with its central chamber, is a rectangular slot, *b*, in which is inserted a strip, *c*, of felt or other suitable textile or fibrous material, which reaches down to the bottom of the chamber and serves as a wick to feed the lubricant upward. I prefer that the length of the wick be a little less than the length of the slot *b*, and leave a small opening on each side thereof for the oil to flow directly from the chamber without being fed by and through the wick.

Over the screw-plug B, projecting from the outer end of the journal, is fitted a nut, C, which is turned up against the outside of the journal-box D when the wheel is in place upon the axle, and a leather or other washer, *d*, is interposed between the inner flange of the journal-box and the collar of the journal, to prevent undue lateral play.

I claim—

As an improvement in automatic or self lubricating axles for vehicles, the non-revolving journal A, with its central longitudinal chamber, *a*, for the reception of the lubricant, a longitudinal slot, *b*, at its top, communicating therewith and having a fibrous material, *c*, located therein, a screw-plug, B, and a nut, C, turned thereover, in combination with the revolving journal-box D, as described.

Witness my hand this 10th day of December, 1884.

HIRAM G. FARR.

In presence of—

N. W. STEARNS,  
CHAS. HALL ADAMS.