

S. S. PUTNAM.

Axle-Lubricator.

No. 59,779.

Patented Nov 20, 1866

Fig. 1.

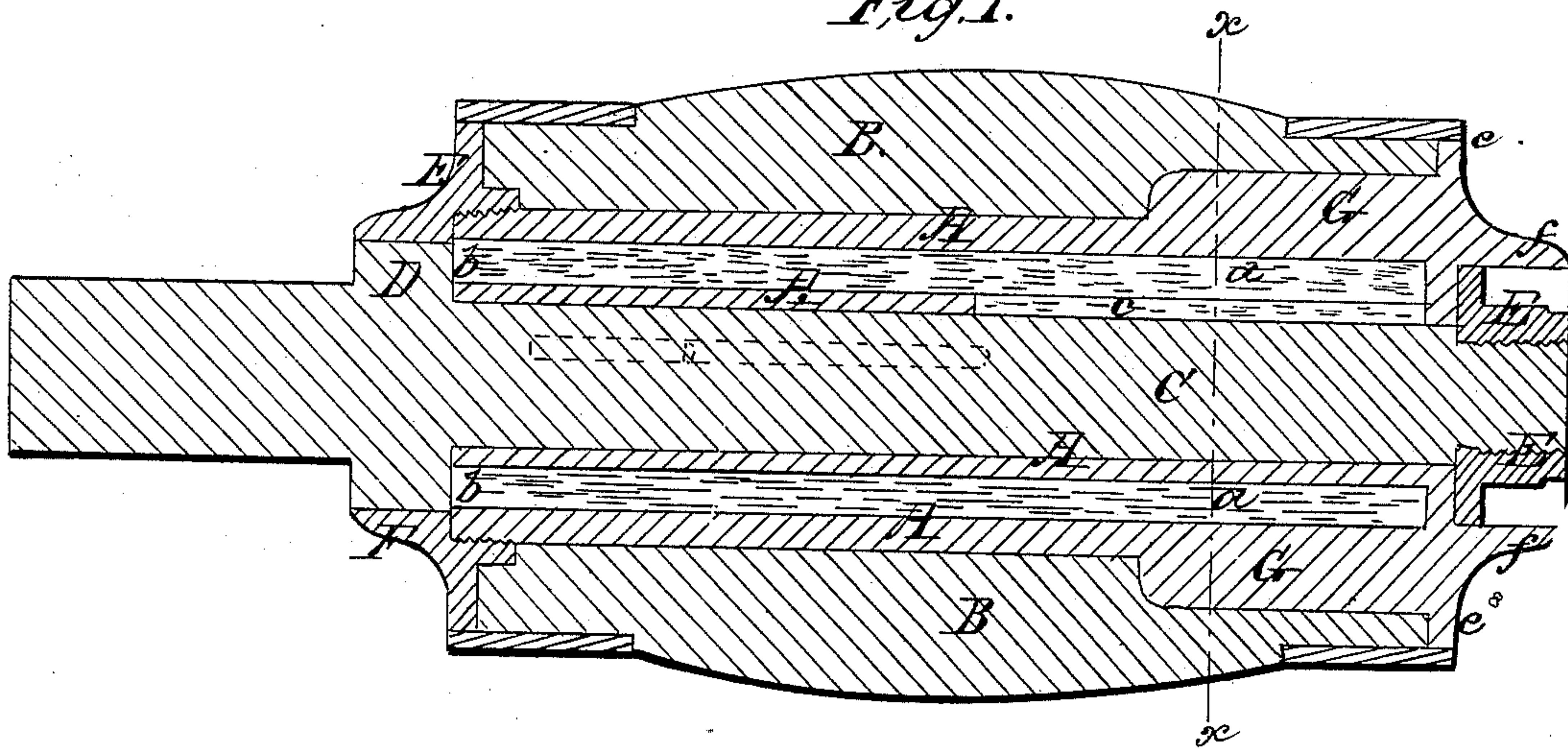


Fig. 2.

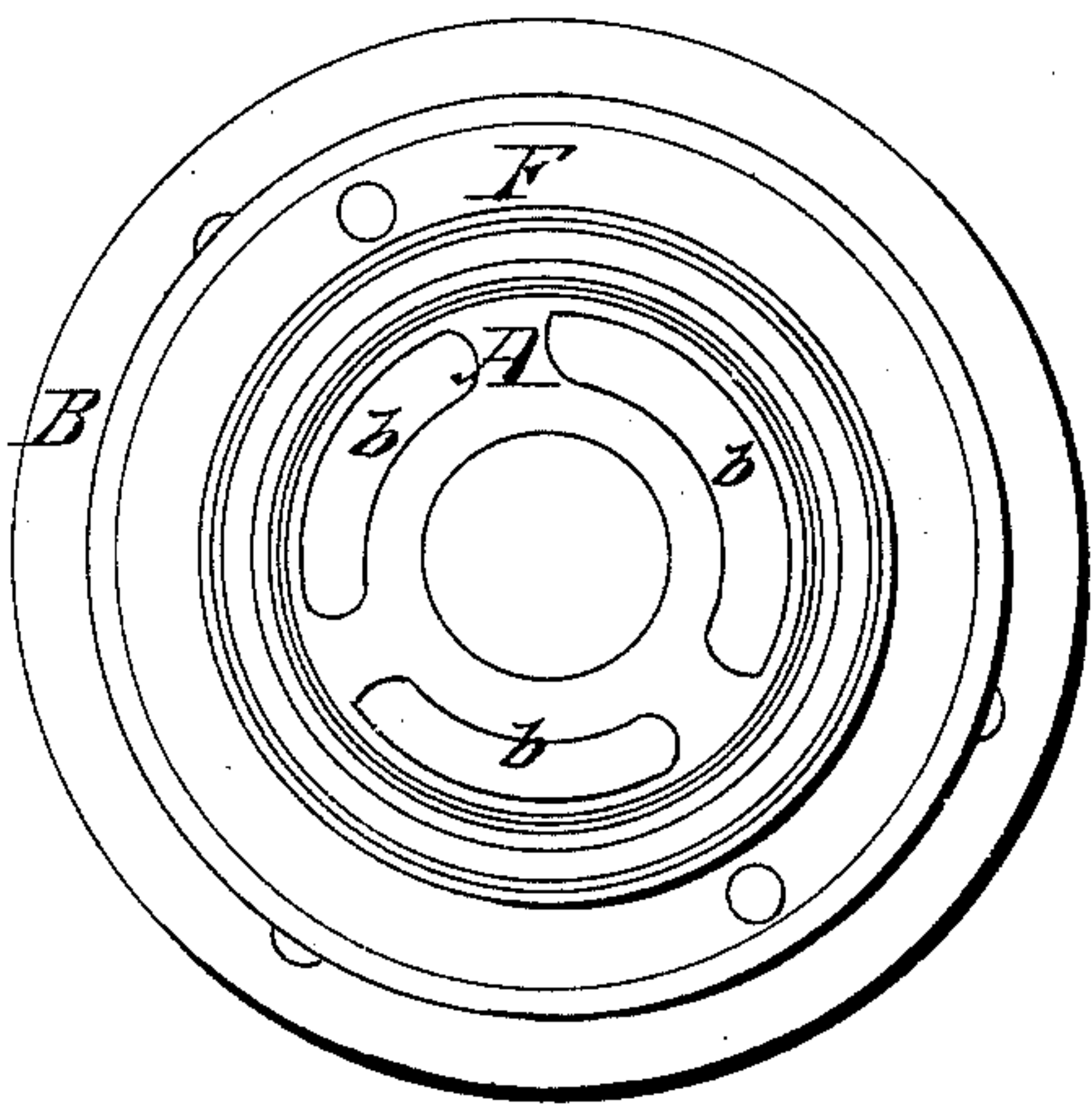
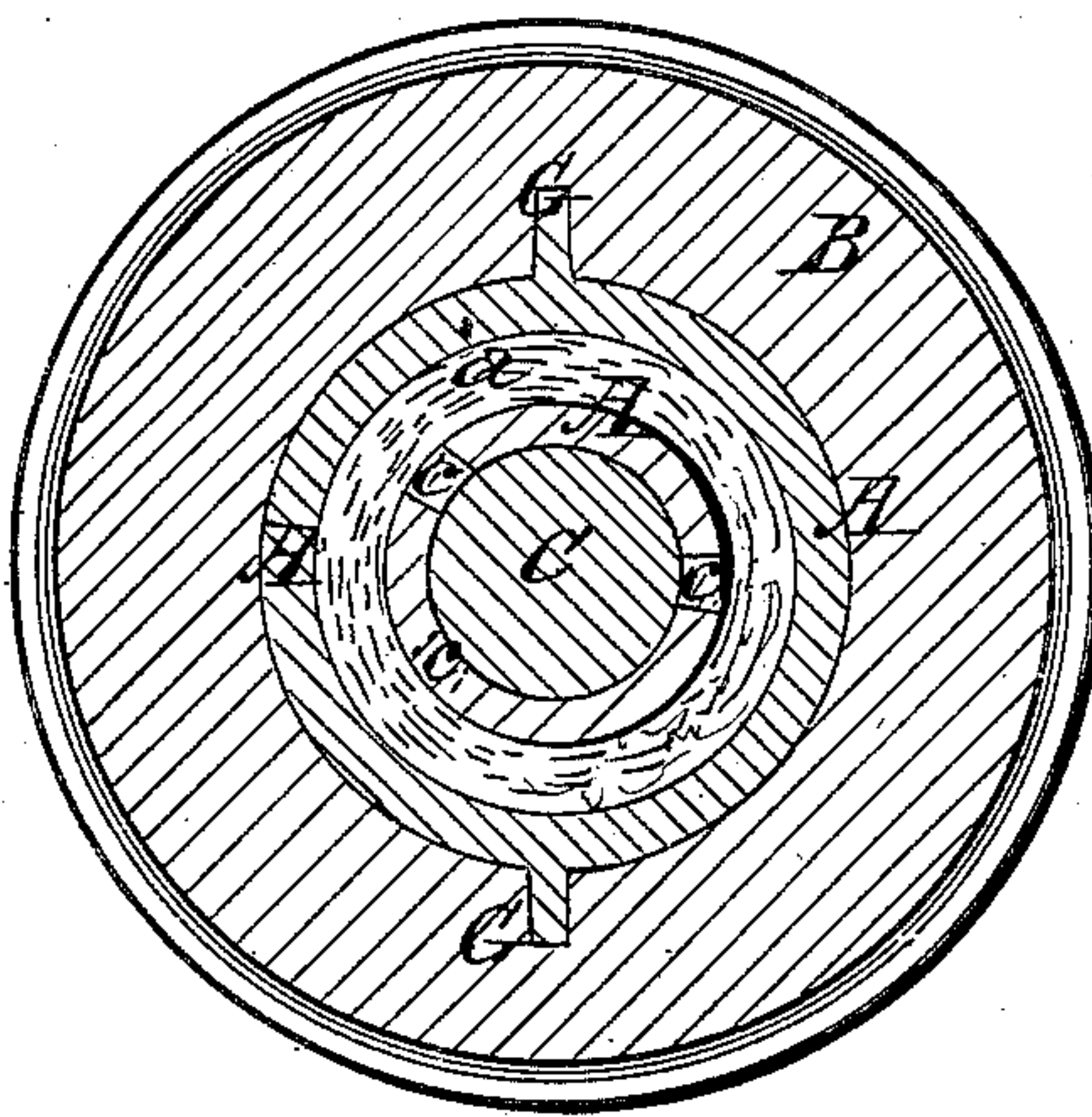


Fig. 3.



Witnesses:

R. E. Stearns
W. W. Stearns

Inventor:
J. S. Putnam

United States Patent Office.

IMPROVEMENT IN SELF-LUBRICATING AXLE-BOX FOR CARRIAGES.

SILAS S. PUTNAM, OF DORCHESTER, MASSACHUSETTS.

Letters Patent No. 59,779, dated November 20, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, SILAS S. PUTNAM, of Dorchester, in the county of Norfolk, and State of Massachusetts, have invented an improved Self-Lubricating Axle-Box for Carriage Hubs, 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—

Fig. 1 is a longitudinal section through an axle, and the hub of a carriage wheel, having my improved self-lubricating axle-box applied thereto.

Fig. 2 is a rear elevation of a hub provided with my improved axle-box.

Fig 3 is a transverse section on the line *xx* of fig. 1.

My invention consists in an axle-box for carriage hubs, having a chamber extending entirely around it for containing cotton waste, sponge, or other fibrous material to be saturated with oil, which is fed through slots or openings to the bearing surface of the axle, in combination with openings at the inner end of the chamber, by which the collar at the inner end of the axle is lubricated, and through which openings the cotton waste or other material is inserted, and the oil is poured in with which it is saturated.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawing, A is the axle-box which is fitted into the hub, B, of the wheel and has formed within it, and extending entirely around it longitudinally, a chamber, *a*, at the inner end of which are formed openings *b*, (fig. 2,) through which it is filled with a packing of cotton waste, sponge, or other fibrous material, which is then saturated with oil poured in at the openings *b*, thus obviating the necessity of an opening through the side of the hub, and affording convenient access to the chamber *a*.

c are longitudinal slots or openings through which the oil is fed by the packing to the bearing surface of the axle C, in a manner similar to that in which the oil is fed up by the wick of a lamp.

The collar, D, at the inner end of the bearing surface of the axle fits into a recess made to receive it, and is lubricated by the packing through the openings *b*; these openings being covered by the collar D, which thus serves to exclude the dust from the chamber *a*.

The nut, E, which holds the wheel in place on the axle, fits into a recess made to receive it, as seen in section fig. 1.

The outer end of the axle-box is provided with a flange *e*, and is finished with a projection *f*, which forms the end of the hub, and serves to protect the nut E; while the axle-box is held tightly in place within the hub B, by the screw nut F, and is prevented from turning by ribs or projections G, which fit into grooves made to receive them, and an axle-box constructed as above described can be easily fitted within the hub requiring no wedging as is frequently the case with those now in use.

It will thus be seen that when the chamber, *a*, is filled with a packing of cotton waste or other suitable material, saturated with oil as above described, the revolution of the wheel will cause the oil to pass through the slots *c* onto the bearing surface of the axle, lubricating it throughout its entire length as required; and an axle-box thus constructed will run for a great length of time without requiring the oil to be renewed.

What I claim as my invention, and desire to secure by Letters Patent, as an improvement in axle-boxes for carriage hubs, is—

The chamber *a* with its slots *c* in combination with the openings *b* at its inner end, constructed and operating substantially as set forth.

Second. I claim the axle-box A, provided with a flange *e*, and finished with a projection *f*, which forms the outer end of the hub, in combination with the screw nut F, for confining it tightly in place within the hub, substantially as set forth.

Witnesses:

P. E. TESCHEMACHER,
N. W. STEARNS.

SILAS S. PUTNAM.