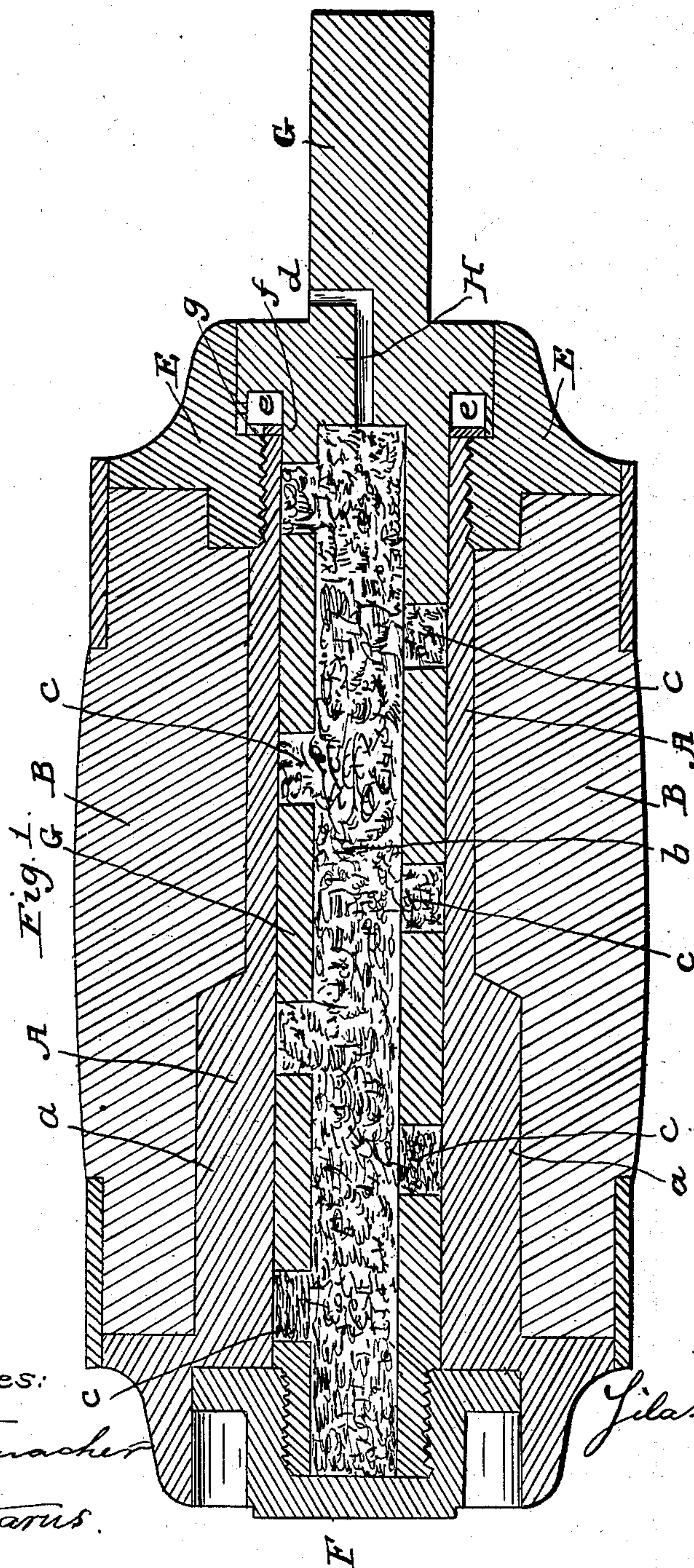


S. S. PUTMAN.

Self Lubricating Axle for Carriages.

No. 74,134.

Patented Feb. 4, 1868.



Witnesses:
P. C. Fitchmacher
N. W. Stearns

Inventor:

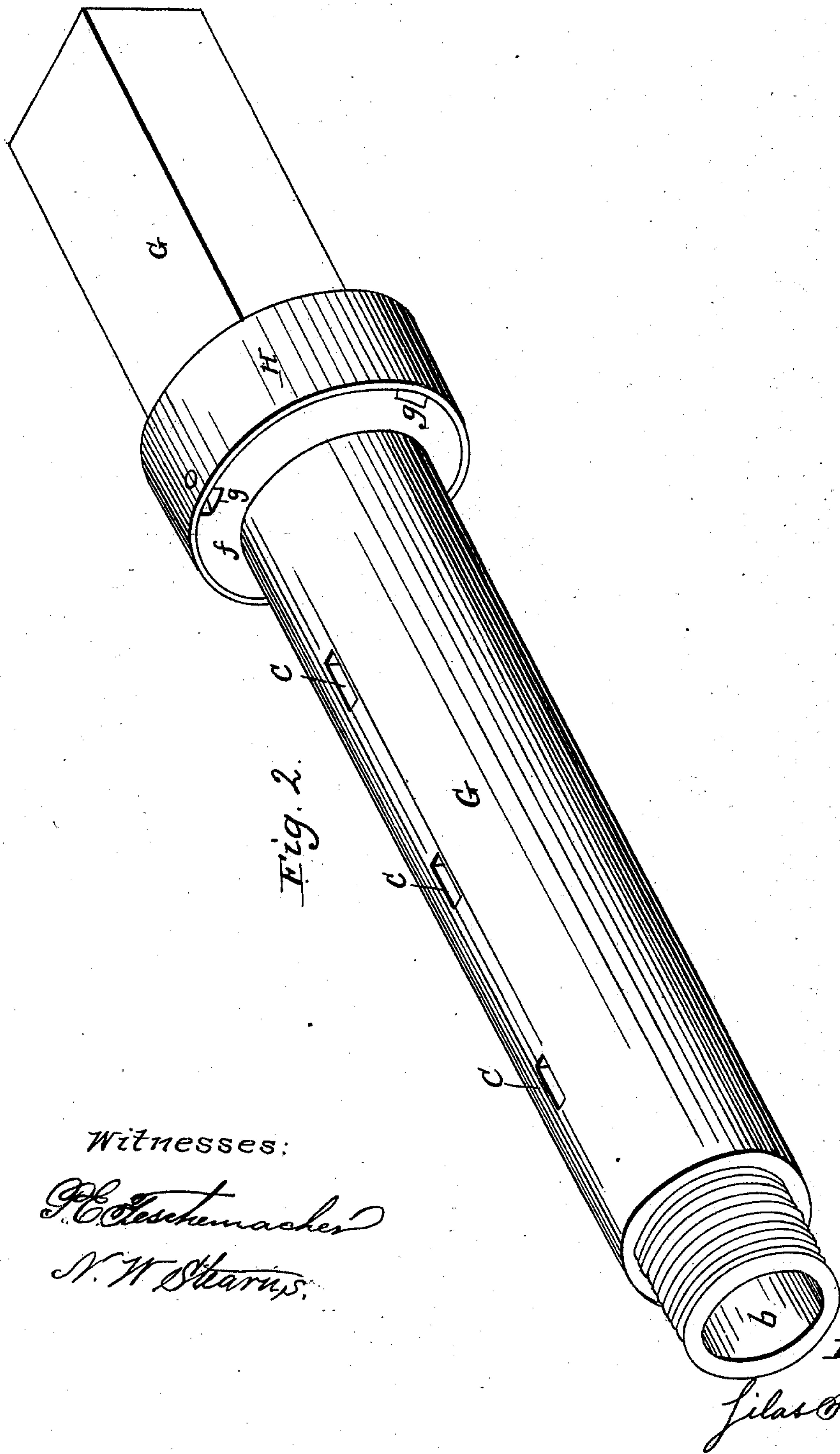
Silas S. Putman

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Self Lubricating Axle for Carriages.

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Patented Feb. 4, 1868.



Witnesses:

J. H. Schumacher

N. W. Stearns

Inventor:

Samuel S. Putman

United States Patent Office.

SILAS S. PUTNAM, OF DORCHESTER, MASSACHUSETTS.

Letters Patent No. 74,134, dated February 4, 1868.

IMPROVEMENT IN SELF-LUBRICATING AXLES FOR CARRIAGES.

The Schedule referred to in these Letters Patent and making part of the same.

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 a Self-Lubricating Axle for Carriages, &c., 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 longitudinal section through the hub of a carriage-wheel having my improved axle applied thereto.

Figure 2 is a view of the axle detached.

My invention consists in a chamber within the end of the axle, packed with fibrous or porous material for receiving and retaining a supply of lubricating-substance which passes through suitable openings to the bearing-surface of the axle; and my invention also consists in forming a chamber in the collar of the axle, which is filled with packing saturated with lubricating-substance, which passes through a suitable opening or openings to the bearing-surface at the inner end of the axle-box.

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 drawings, *A* is the axle-box, which is held tightly in place within the hub *B* by means of the screw-nut *E*, and is prevented from turning by ribs or projections *a*, which fit into grooves made to receive them, the outer end of the axle-box being finished to form the end of the hub, and serving to protect the screw-nut *F*, which holds the wheel in place upon the axle *G*. The end of this axle is bored out, forming a chamber, *b*, the mouth of which is closed by the screw-nut *F*. This chamber (the length of which corresponds to that of the bearing-surface of the axle) is filled with a packing composed of cotton-waste, sponge, or other fibrous or porous material saturated with oil or other lubricating-substance. *c* are slots or openings communicating with the chamber *b*, and through these openings the oil or lubricating-substance is fed by the packing to the bearing-surface of the axle. *d* is an opening communicating with the chamber *b*, through which, or the openings *c*, the oil or lubricating-substance may be introduced to saturate the packing. The collar *H*, at the inner end of the bearing-surface of the axle, is provided with a chamber, *e*, for containing saturated packing, over which is fitted an annular plate or washer, *f*, having openings, *g*, through which the oil or lubricating-substance is fed to the bearing-surface at the inner end of the axle-box. It will thus be seen that when the chambers *b* and *e* are filled with a packing of fibrous or porous material, saturated as above described, the revolution of the wheel will cause the oil or lubricating-substance to be fed through the openings *c g* on to the bearing-surfaces of the axle and axle-box, lubricating them throughout their whole length, as required, and where an axle so constructed is employed the lubricating-substance will not require to be renewed for a great length of time.

Claim.

What I claim as my invention, and desire to secure by Letters Patent, is—

A chamber, *b*, within the end of the axle, packed with fibrous or porous material, for receiving and retaining a supply of lubricating-substance, which passes through openings to the bearing-surface of the axle, substantially as described.

I also claim providing the collar *H* with a chamber, *e*, for containing packing saturated with lubricating substance, substantially as and for the purpose set forth.

Witnesses:

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

SILAS S. PUTNAM.