

(No Model.)

J. SLADDIN.
CARRIAGE AXLE LUBRICATOR.

No. 350,780.

Patented Oct. 12, 1886.

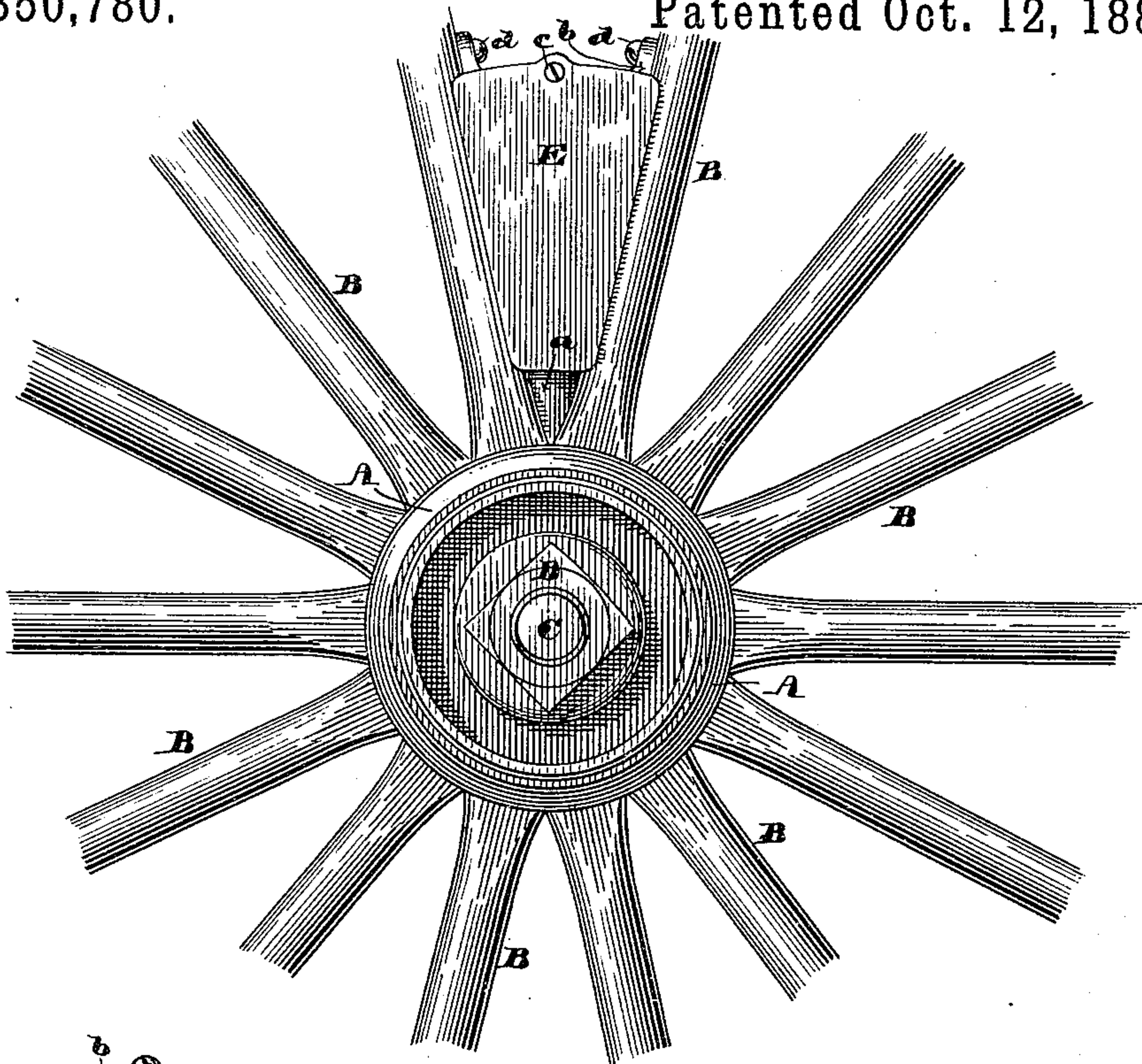


Fig. 1.

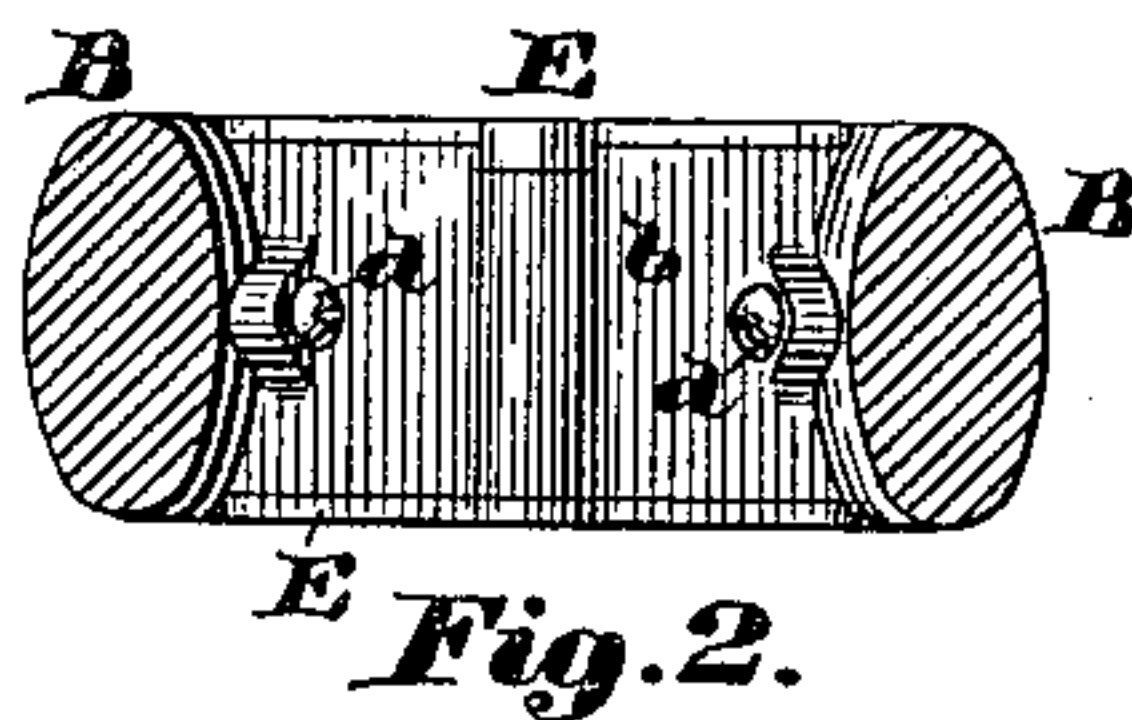


Fig. 2.

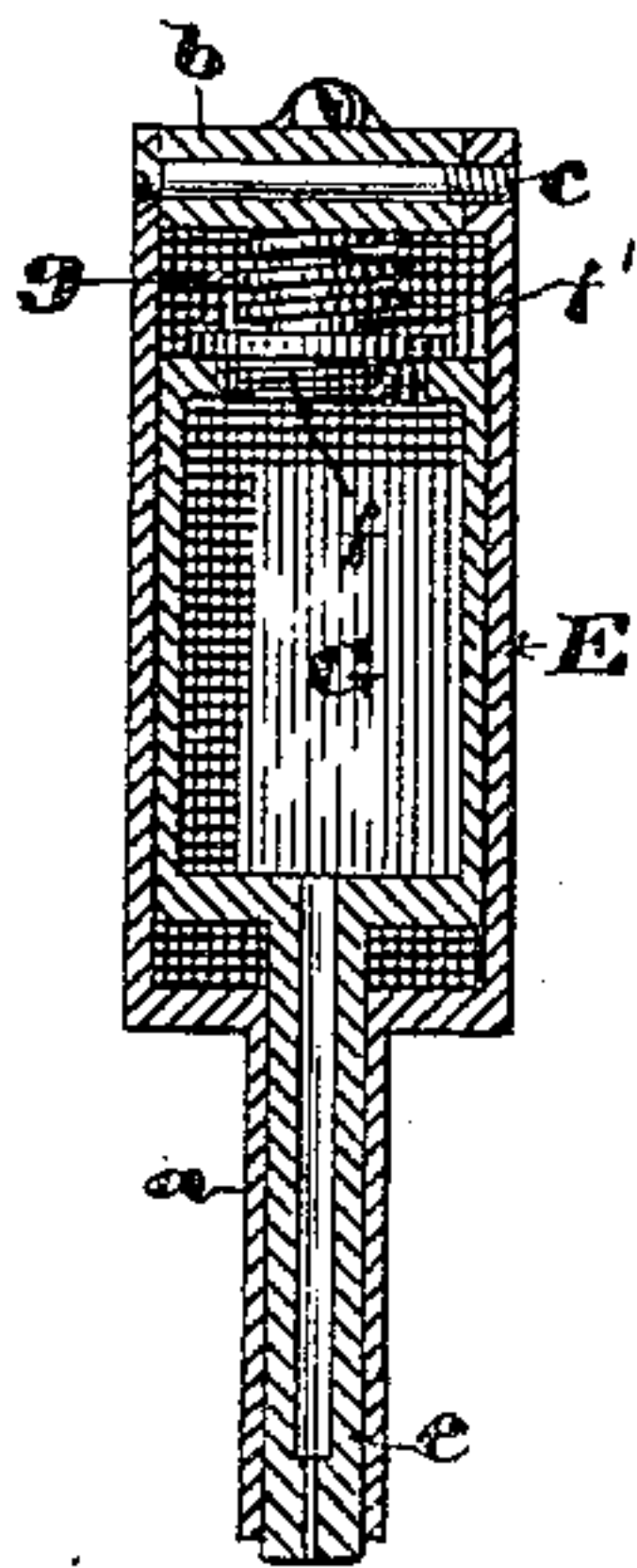


Fig. 4.

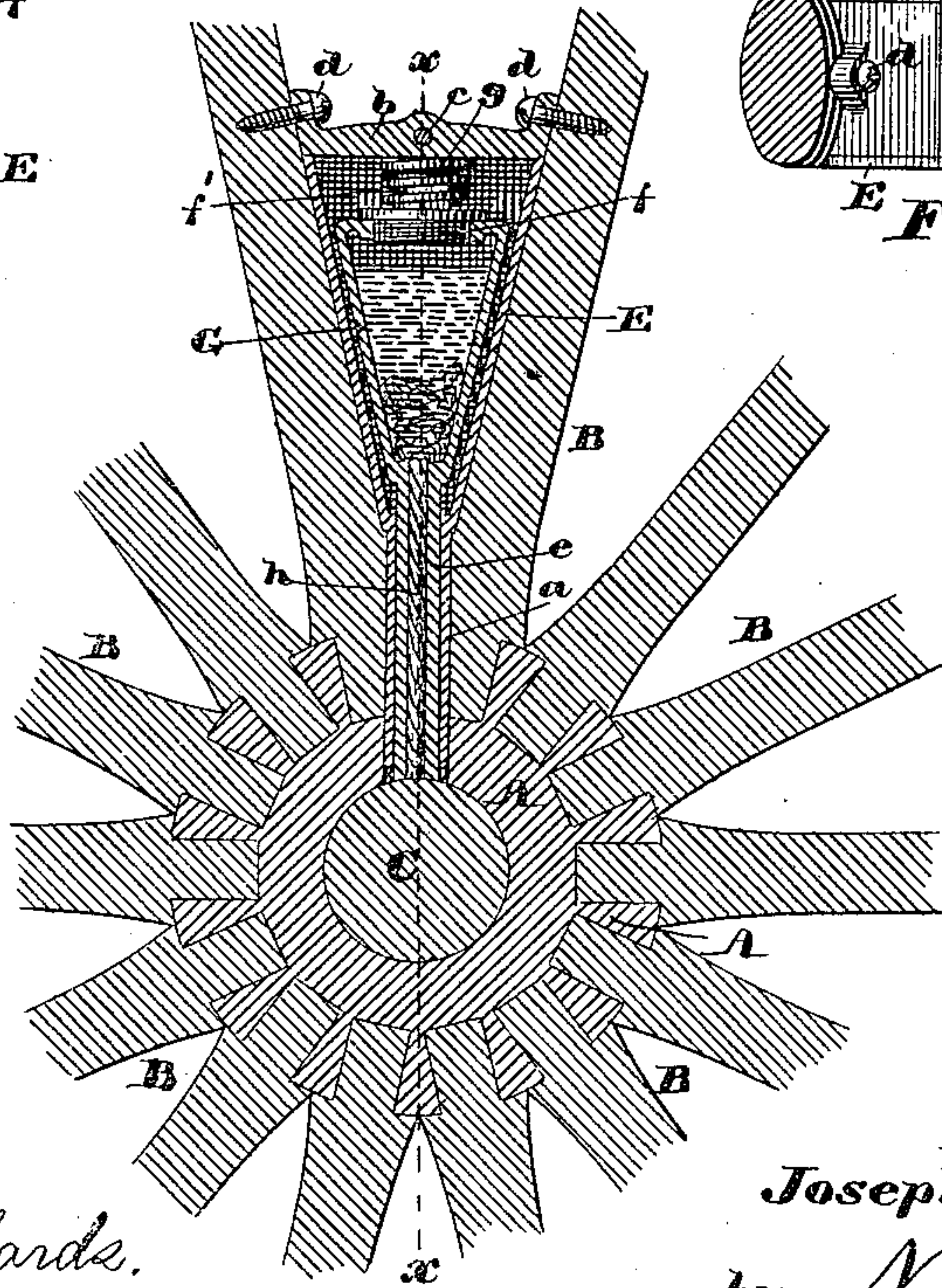


Fig. 3.

Witnesses:

Walter E. Lombards.
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UNITED STATES PATENT OFFICE.

JOSEPH SLADDIN, OF LAWRENCE, MASSACHUSETTS.

CARRIAGE-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 350,780, dated October 12, 1886.

Application filed April 26, 1886. Serial No. 200,193. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SLADDIN, of Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Carriage-Axle Lubricators, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the lubrication of carriage-axes; and it consists in certain novel features of construction, arrangement, and combination of parts, which will be readily understood by reference to the description of the drawings, and to the claims to be hereinafter given.

Figure 1 of the drawings is a side elevation of the central portion of a carriage-wheel mounted upon its axle and having my invention applied thereto. Fig. 2 is a transverse section through two of the spokes of the wheel, and showing the lubricator in plan. Fig. 3 is a vertical section through the centers of the spokes in a plane at right angles to the axis of revolution of the wheel; and Fig. 4 is a vertical section through the lubricator and its casing on line *x x* on Fig. 3, but showing a slightly-modified construction of the oil-conduit.

In the drawings, A is the hub, and B B the spokes, of a carriage-wheel mounted upon the axle C, and secured thereon by the nut D, in a well-known manner, the outer portions of the spokes, the felly, and tire being broken away as unnecessary to the proper understanding of my invention.

E is a metallic casing fitted to the angular space between two spokes, near the hub, its edges being curved to fit the sides of said spokes, and said casing being of an exterior width not greater than the thickness of said spokes in the direction of the length of the hub of the wheel, as shown in Fig. 2. The casing E is provided at its smaller end with the tubular stem *a*, which is fitted to a radial hole in the hub A, and between two of the spokes B, as shown in Fig. 3. The casing E is formed with its outer or larger end open, with its two broader sides extending above the two narrower sides, which fit against the spokes, and said opening is closed after the oil-cup F is

placed in position by the cap or bar *b*, fitted between the higher side plates, and secured thereto by the bolt *c*, and to the spokes by the screws *d d*, as shown in Figs. 1 and 3.

G is the oil-cup, made with two parallel sides and two sides that are at an angle to each other, corresponding substantially to the angle of the two spokes between which it is placed, and is provided at its smaller end with the tubular stem *e*, which fits loosely the interior of the stem *a* of the casing, and extends to and rests upon the axle C, as shown in Fig. 3. The oil-cup G is provided in its other end with an opening for introducing the oil, which opening is closed by the screw-plug *f*, provided upon its outer surface with a pintle, *f'*, to receive the spring *g*, interposed between said screw-plug and the cap or bar *b*, which spring is made of sufficient tension to maintain the end of the stem *e* in contact with the axle as the wheel revolves around the same.

The oil-passage through the stem *e* may be made of sufficient size to receive the packing of absorbent material *h*, as shown in Fig. 3, or it may be contracted at its discharge end to a mere pin-hole, and the packing may then be dispensed with, as shown in Fig. 4, the object to be attained being to deliver to the axle only so much oil as may be necessary for the proper lubrication of the axle.

The casing E may be dispensed with, if desired, retaining the stem *a* as a bushing to guide the stem *e* of the oil-cup, and the bar *b* to take the thrust of the spring *g*, without affecting the operation of the lubrication of the axle; but I prefer to use the casing as shown as a protection for the oil-cup.

In another application of even date herewith I have shown and described an oil-cup for use on general machinery, which operates upon the same principle as the one here shown and described, and therefore in this application I do not claim, broadly, an oil-cup having the end of its discharge-stem resting upon the shaft to be lubricated and movable to and from said shaft.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In combination with a carriage-wheel and its axle, an oil-cup located between two of the

spokes of said wheel, and provided with a tubular discharge-stem fitted loosely to a bearing in the hub of said wheel, with its end in contact with the periphery of the axle and
5 freely movable to and from the same, a bar connecting said spokes outside of said oil-cup, and a spring interposed between said oil-cup and bar, substantially as described.

10 2. In combination with a carriage-wheel and its axle, a casing or metallic chamber fitted to the angle between two spokes, near the hub, and to the transverse curves of the sides of said spokes, and provided with a tubular shank set in the hub, an oil-cup within said casing and

provided with a tubular discharge-stem fitted 15 to a bearing in the hub of the casing, with its end resting upon the periphery of the axle, a bar connecting said spokes and closing the outer end of said casing, and a spring interposed between said bar and the oil-cup. 20

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 24th day of April, A. D. 1886.

JOSEPH SLADDIN.

Witnesses:

N. C. LOMBARD,

WALTER E. LOMBARD.