

(No Model.)

E. VAN DECAR.

LUBRICATOR FOR JOURNALS OF RAILWAY WHEEL AXLES.

No. 398,556.

Patented Feb. 26, 1889.

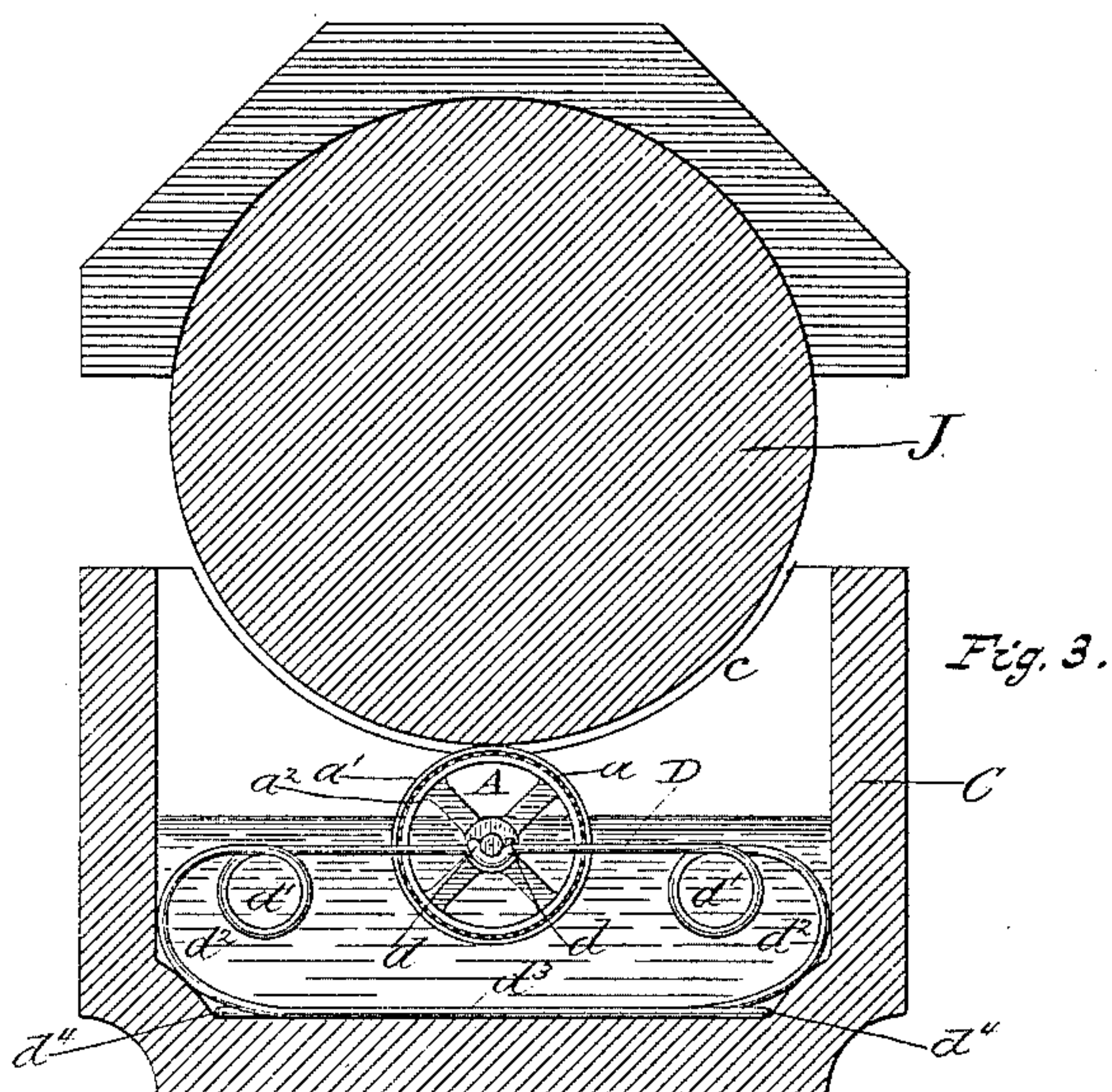
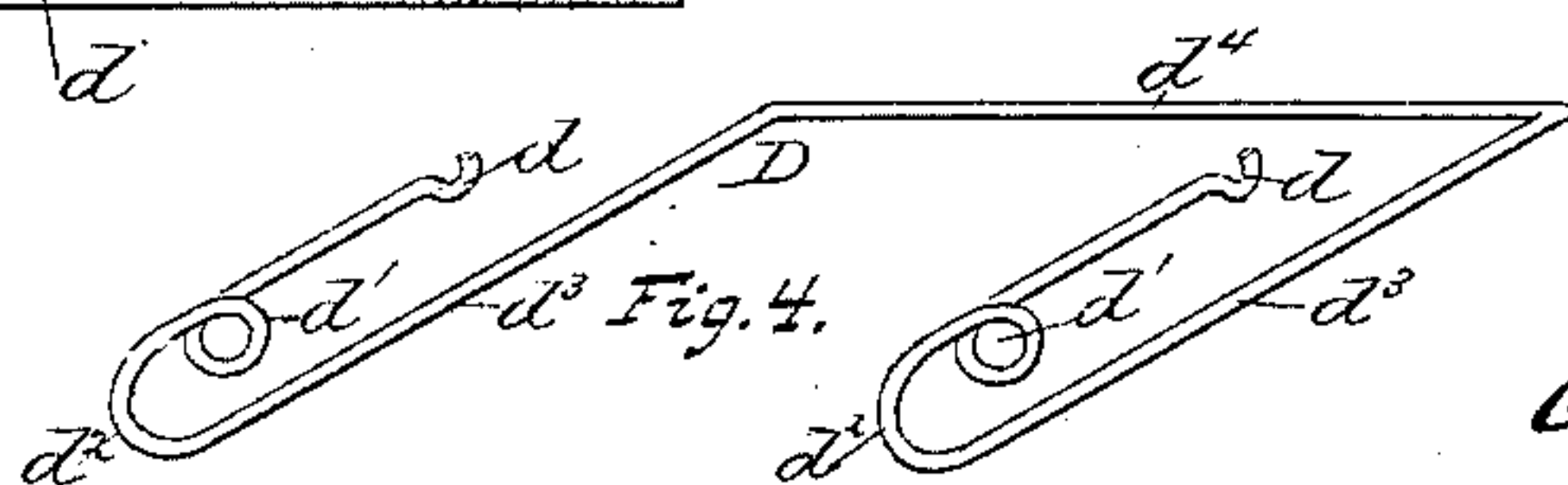
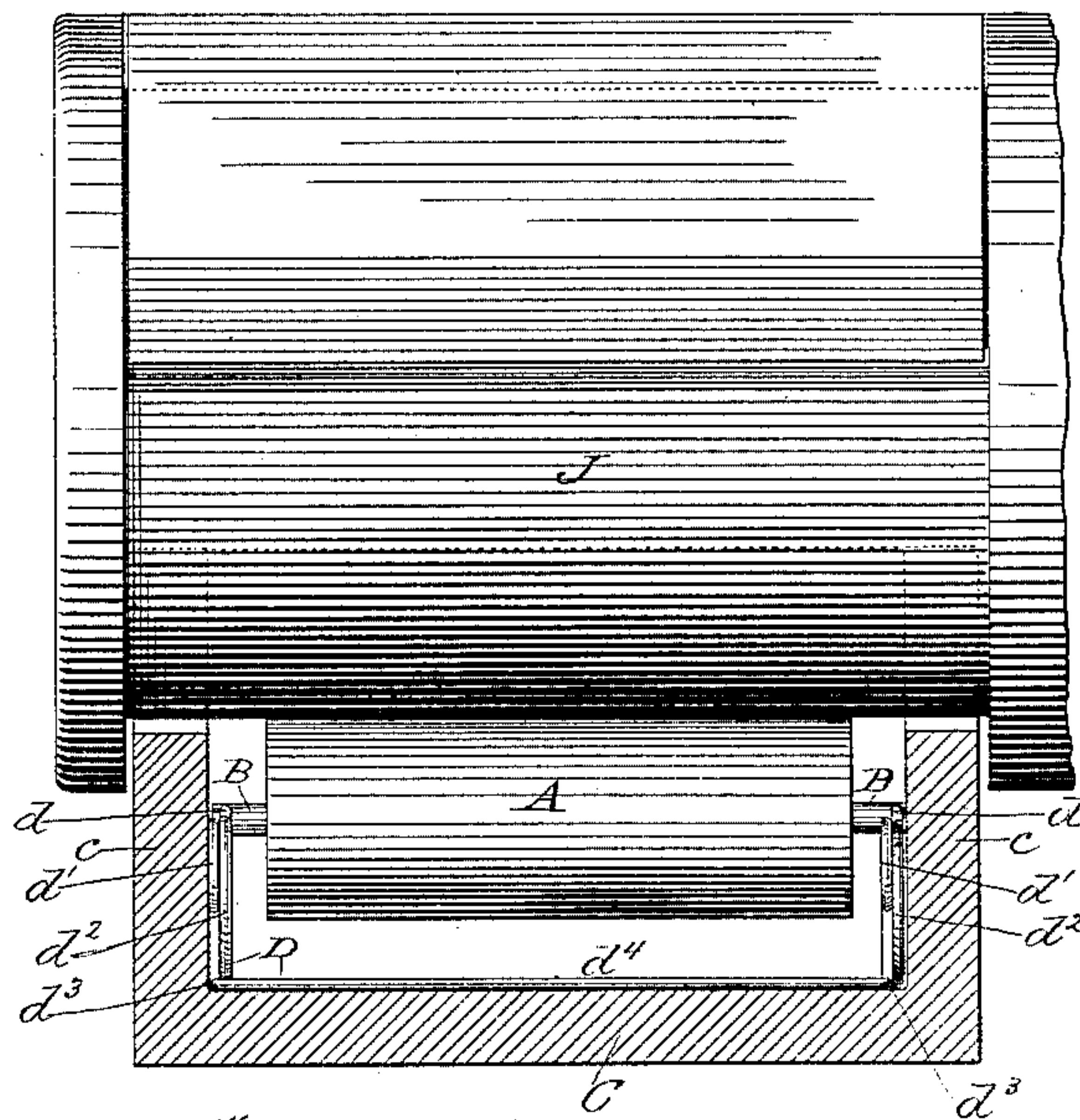
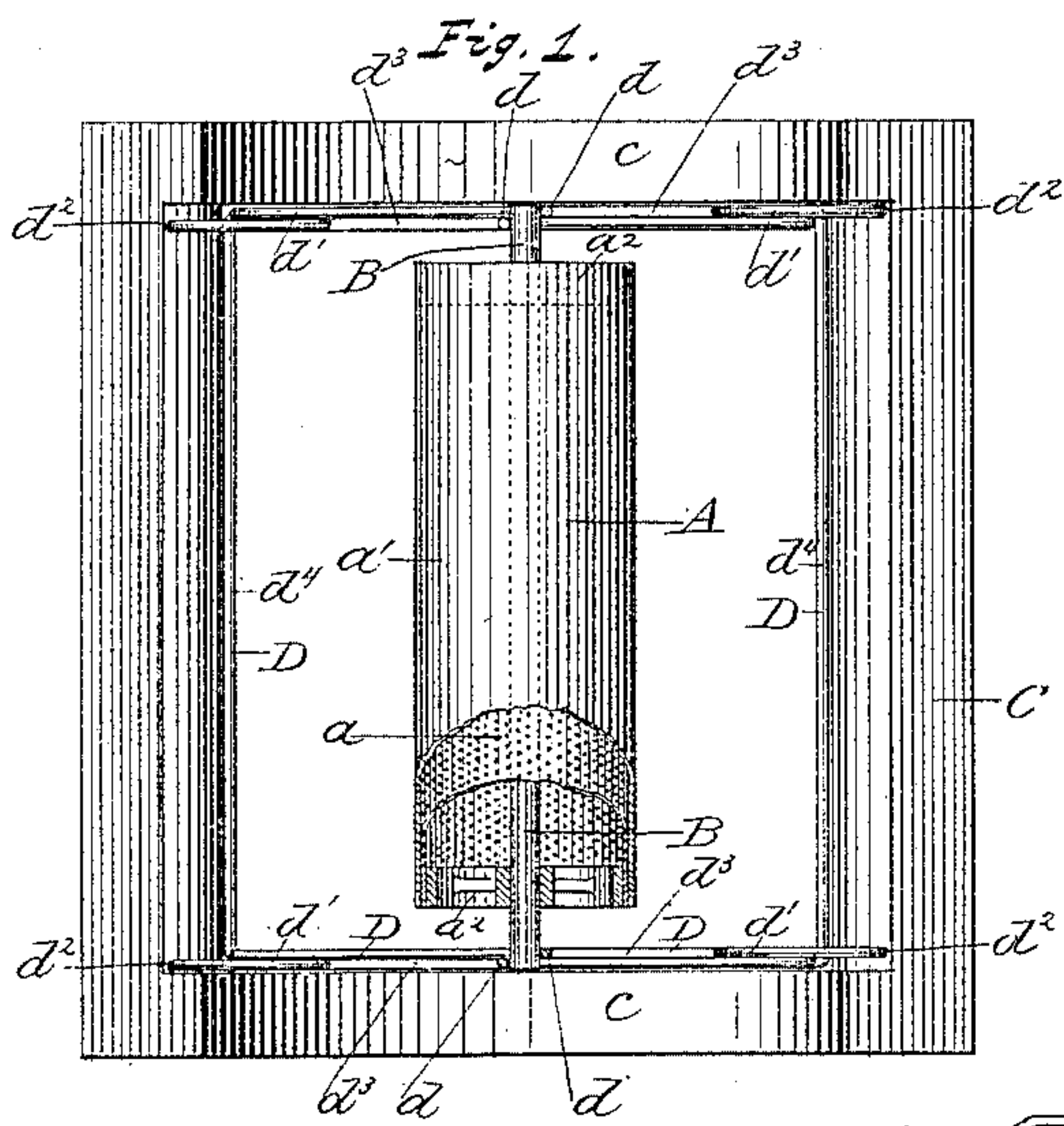


Fig. 2.



Witnesses.

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LUBRICATOR FOR JOURNALS OF RAILWAY-WHEEL AXLES.

SPECIFICATION forming part of Letters Patent No. 398,556, dated February 26, 1889.

Application filed November 30, 1888. Serial No. 292,268. (No model.)

To all whom it may concern:

Be it known that I, EMERY VAN DECAR, a citizen of the United States, and a resident of East Albany, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Lubricators for Journals of Railway-Wheel Axles, of which the following is a specification.

My invention relates to a lubricator for journals of axles of railway-wheels; and it consists in the combinations of devices and elements hereinafter particularly described, and specifically set forth in the claim.

The object of my invention is to combine with a perforated walled cylinder mounted on a shaft and having its walls covered by a porous cushion of fabric which will receive and hold oil and transfer the same to the journal, and also having its ends open to admit oil to within the chamber of the cylinder, suitable bearings which are connected or secured with elastic cylinder-holding devices, whereby the lubricating-cylinder can be readily introduced within the oil-cellar of the axle-journal and be elastically supported therein and in contact with the periphery of the axle without liability of shifting in either direction within the chamber of the oil-cellar. I attain these objects by the means illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of my improved lubricating device in place in the chamber of the oil-cellar. Fig. 2 is a side elevation of the same, with the walls of the oil-cellar shown in section and the lubricating-cylinder in place against the lower side of the journal of the axle. Fig. 3 is a cross-sectional view of an oil-cellar and journal of an axle and an end view of the lubricating-cylinder and its elastically-supporting bearings. Fig. 4 is a perspective view of the elastic cylinder-supporting device employed with the cylinder.

The same letters of reference refer to like parts throughout the several views.

In the drawings, A represents the lubricating-cylinder, which cylinder is composed of the perforated metallic shell *a* and the outer porous cushion, which cushion covers the outer surface of the perforated shell *a* in all

its extension. This cushion can be made of loosely-twisted yarn wound around the periphery of shell *a*, or of loosely-woven cloth or seamless knit fabric, or any other suitable material fitting nicely on the outside of the said shell *a*. (Shown by full lines in Fig. 3 and by full and dotted lines in Fig. 1.) Open-work end heads, *b*, properly secured to the ends of the perforated shell *a* from their inner sides, hold the shell in shape and receive the shaft or spindle B and hold it central with the cylinder A and adapt it to be revolved. This shaft B is made with a length a little greater than the cylinder A, and has an extension about equal to the distance that the end walls, *c c*, of the cellar C are apart, so that said shaft will be received between the said walls without binding at its ends. The journal ends of shaft B are supported in bearings *d d*. These bearings are shown in the drawings to be made in connection with the elastic supporting device D, made, preferably, of spring-wire, (or a strip of spring metal,) and arranged within the chamber of the oil receptacle or cellar C, so as to hold the lubricating-cylinder central within the same and in contact with the journal J, as illustrated in Figs. 2 and 3. These elastic holding devices D are preferably employed in pairs, each device being made from a single piece of wire, as illustrated in Fig. 4, and when this elastic holding device is employed in duplicate, as shown in Figs. 1 and 3, they will be arranged opposite to each other within the chamber of the cellar, as illustrated in the same figures, so that each end of the shaft B will be supported by two bearings, as *d d*, connected with the elastic coil, and bow made integral with the base limbs, as shown in Figs. 1, 2, 3, and 4. When in position, as shown in Figs. 1 and 3, these elastic supporting devices will hold the cylinder A central within the chamber of the cellar, with its porous cushioned periphery *a* in situation for contact with the lower side of the journal J. When oil or other liquid lubricant is introduced within the cellar C, it will readily enter into the chamber of the cylinder A through the open head ends, *a*, when the oil within the cylinder will have passage through

the perforations of the perforated shell *a* to the porous material, forming the porous cushion of the cylinder, which cushion will be charged with oil from inside of the cylinder, as well as from the oil lying outside the same, and when the journal *J* is revolved it will impart motion to the lubricating-cylinder *A* and cause it to revolve, when the oil carried by the porous cushion will be transferred to the periphery of the journal in a uniform manner, and thereby lubricate the same.

By the improvements in my above-described invention the lubricating-cylinder and its elastic supporting devices can be adapted to be readily applied to the cellars or oil-boxes of journals of car-axles and also to those of the journals of the driving-shafts of locomotives without necessitating any changes whatever in the construction of the oil cellars or boxes, and the devices will be securely held within the cellar from displacement, with the lubri-

cating-cylinder free to revolve in contact with the surface of the journal to be lubricated, while the lubricating material will be positively transferred to the porous cushion *a* from both of its sides and by it be transferred to the surface of the journal.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

The combination, with the lubricating-cylinder *A*, constructed of perforated metal *a*, and porous outer cushion, covering the former, and mounted on shaft *B*, and having open end heads, of the bearings *d d*, supported by the elastic holding devices *D*, constructed, substantially as described, for operation and purposes as set forth.

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Witnesses:

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