

(No Model.)

R. FAAS.

CAR AXLE LUBRICATOR.

No. 371,258.

Patented Oct. 11, 1887.

Fig. 1.

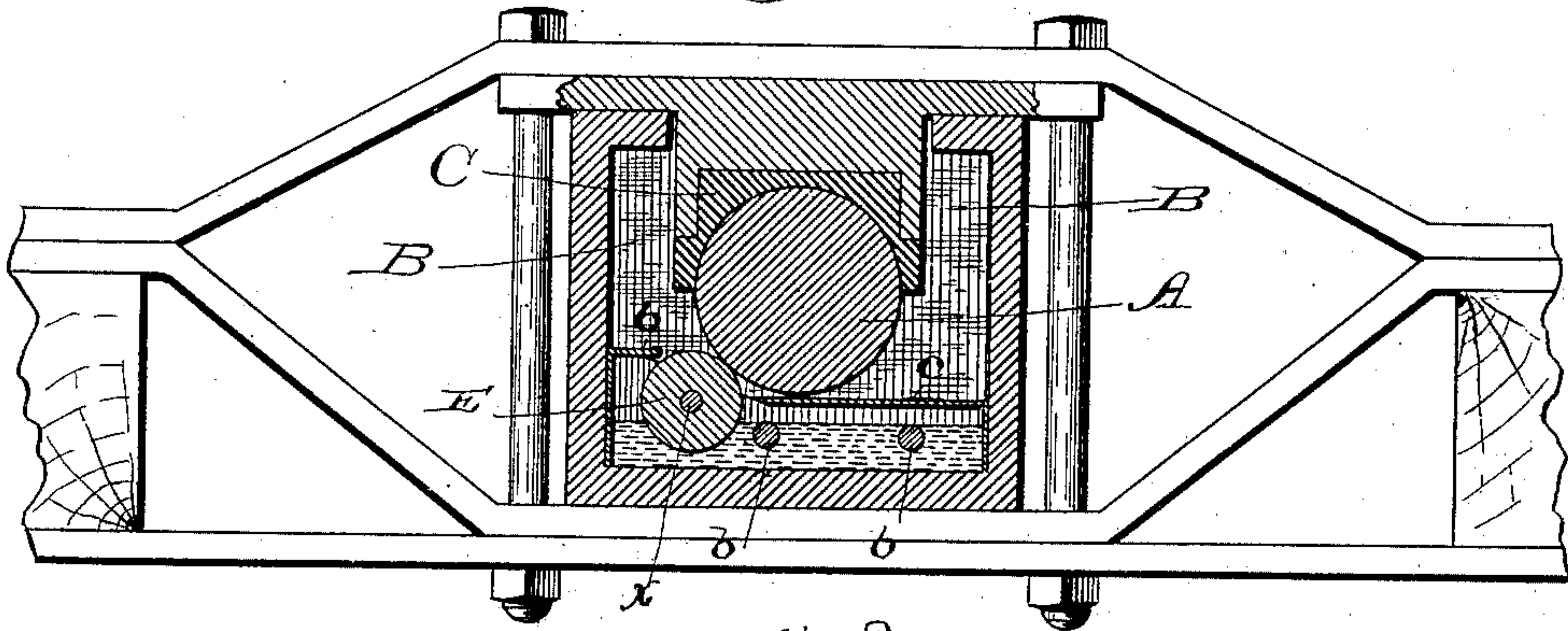


Fig. 2.

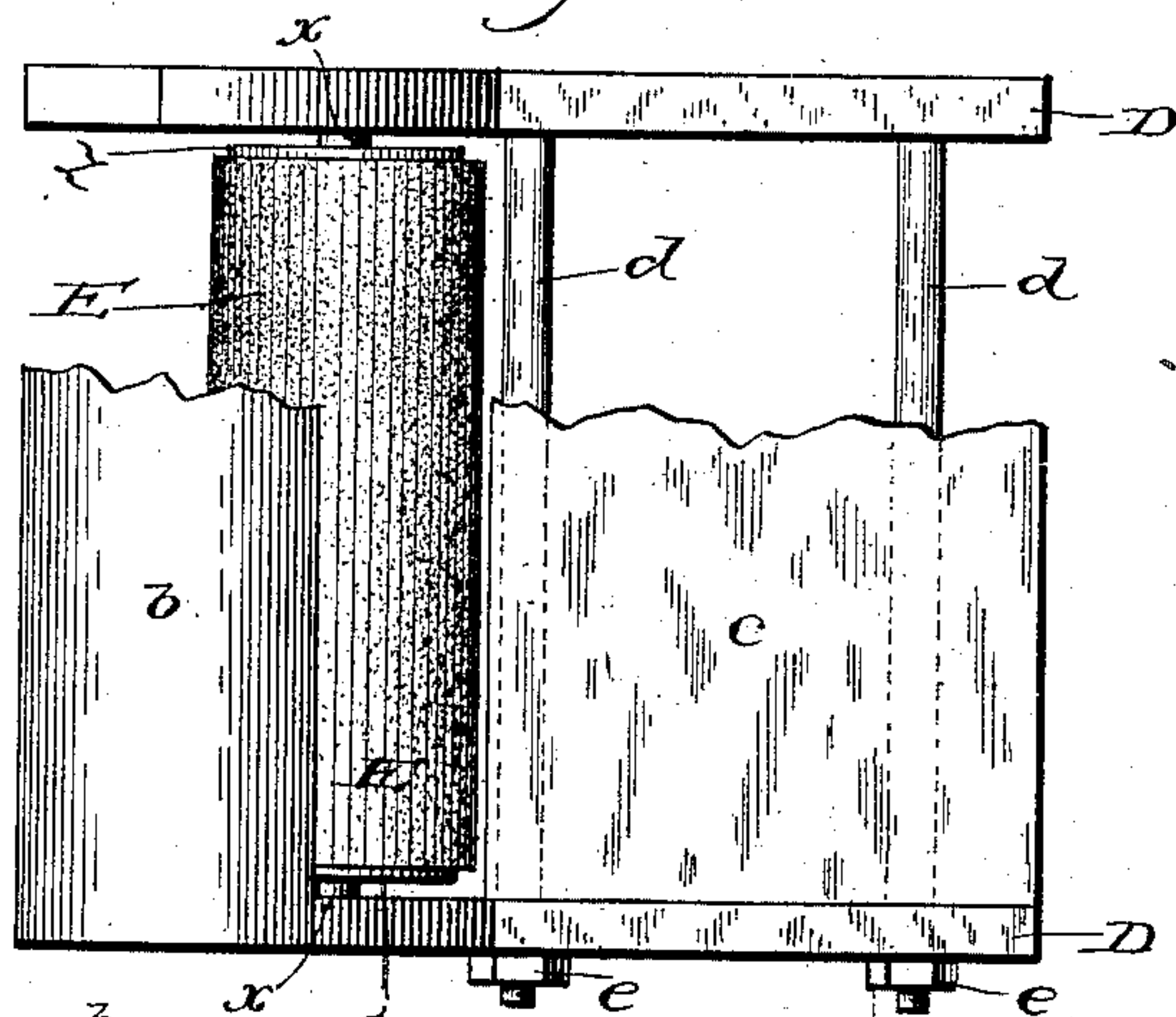


Fig. 3.

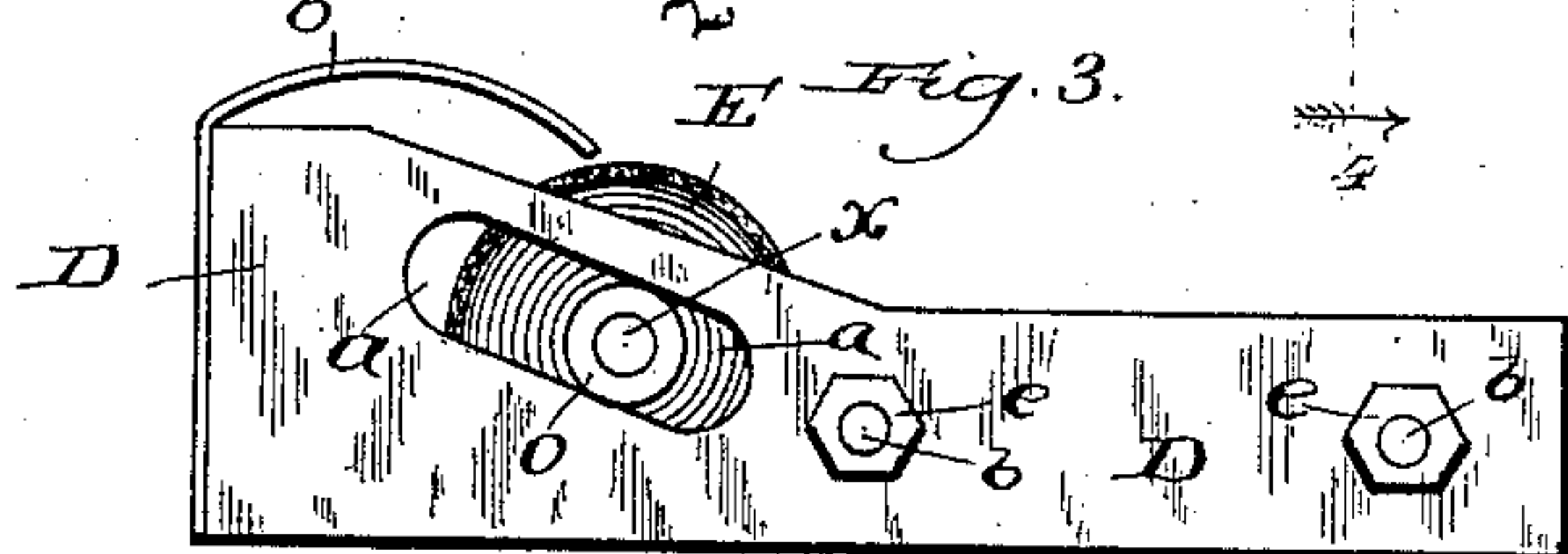


Fig. 4.

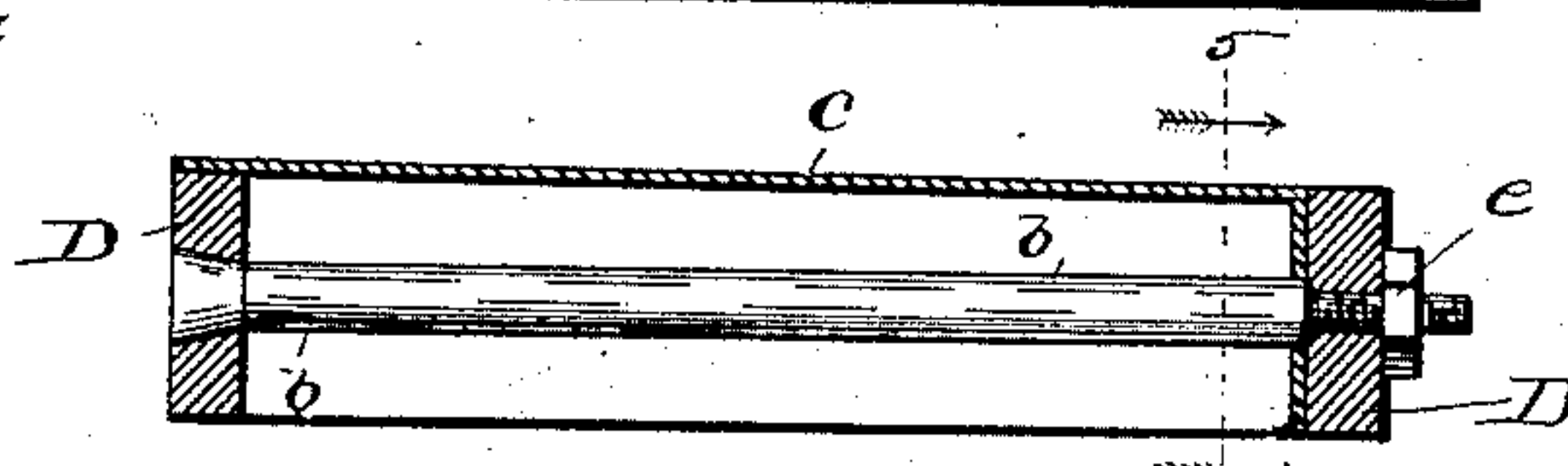
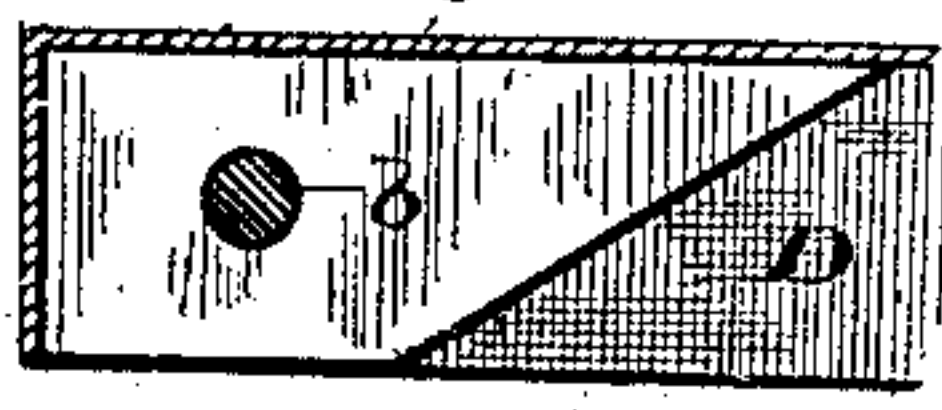


Fig. 5.



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UNITED STATES PATENT OFFICE.

RUDOLPH FAAS, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE STANDARD CAR AXLE LUBRICATOR COMPANY, OF SAME PLACE.

CAR-AXLE LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 371,258, dated October 11, 1887.

Application filed March 23, 1887. Serial No. 232,055. (No model.)

To all whom it may concern:

Be it known that I, RUDOLPH FAAS, a citizen of the United States of America, residing in the city of Chicago, county of Cook, and State of Illinois, have invented a new and useful Device and Improvement in Car-Axle Lubricators, of which the following is a specification.

This specification is filed as an improvement on my former invention, for which Letters Patent No. 352,612 were issued November 16, 1886.

The usual method of lubricating car-axles is to fill the axle box with cotton waste and oil. This has been found unreliable and wasteful.

The objects of my invention are, first, economy in the use of the lubricant; second, to provide a continuously-lubricated axle-journal; third, to protect the lubricant from accumulations or deposits of sand, dust, or other foreign substances, and, fourth, to provide a substantially-constructed lubricator to withstand the constant wear from contact with the car-axle journal. I attain these objects by the mechanism illustrated in the accompanying drawings, to which—

Figure 1 is a vertical cross-section of a car-axle box, showing the position of my device therein and its relation to the journal. Fig. 2 is a plan view of the device with a portion of the covers removed. Fig. 3 is a side elevation of the same. Fig. 4 is a sectional view on line 4 of Fig. 2. Fig. 5 is a sectional view on line 5, Fig. 4.

Similar letters refer to similar parts throughout the drawings.

Two metal bars, D D, wider at one end than the other, of a suitable length to be placed in a car-axle box, joined together by two bolts, *d d*, constitute the frame of my device. At the more elevated end of the frame D D so constructed an inclined slot or bearing, *a a*, about an inch or an inch and a half long, is made in each side of the metal frame, into which the journals *x* of the roller E, Fig. 3, are placed. The frame D D and roller E are placed in position in the car-axle box B, Fig. 1, and the roller E engages with the journal A. The constant motion of the roller thus obtained in the oil keeps the journal A continuously lubricated. The slots or inclined bearings *a a*,

Fig. 3, incline in the direction opposite the journal A, thus allowing the roller E to bear against said journal A by its own gravity. The length of the slot permits a free play of the roller E, and relieves the roller from any severe pressure, friction, or concussion by sudden contact with the journal.

A collar, *o*, is placed on or around the journal *x* of the roller E, in order to relieve and divide the friction and wear of the roller-journal *x*, which adds very materially to the strength and durability of the roller and device. It is removable, and may be replaced when desired.

The frame D D being connected by the bolts *d d*, which have one end permanently attached to one side of the frame, and secured to the other side by means of the nuts *e e*, I am enabled to place the device in the axle-box B by disconnecting the frame and first taking the side having the bolts *d d* attached and pushing it back to the side of the journal-box the most distant. The roller is next inserted with its journal in the slot. The cover *c* is next placed in position, and, lastly, the other side of the frame and the bolts placed in position and fastened by the threaded nuts *e e*. The metal apron *b* is then placed at the head of the frame, one side of which, being concave, extends partly over the roller E. Two rollers may be used, if desired, by simply placing another roller in a similar manner in the opposite end of the frame D D. By this method of journaling the axle of the roller in the inclined bearing or slot I secure greater protection and a larger degree of usefulness and service.

The metal cover *c* may be either loose and laid on the top of the frame D D, or it may have a flange on one side, which is perforated and one of the bolts *d d*, Fig. 5, passed through, thus firmly holding it in position.

The objects of the metal apron *b* and cover *c* are to exclude dust, sand, or other foreign substances from the oil in the journal-box and inclosed by the frame D D.

The roller E is formed by the axle *x* with the flanges *z z*, and around the spool thus formed is wound canvas, cloth, felt, or other porous substance. The journals of the axle are protected in their bearings by the collar *o*.

I am aware that prior to my invention lubricators have been made by having rollers engage with the car-axle journal, and therefore I do not claim such a combination, broadly; 5 but

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

1. The combination of the roller E with the frame D D, the inclined bearing or slot *a*, in 10 which the journal *x* of the roller plays, and the collar *o* upon the journal *x*, substantially as described.

2. The combination of the roller E, made, as described, of canvas, cloth, felt, or other porous material, with the frame D D, joined to- 15 gether by the threaded bolts *d d*, nuts *e e*, the metal apron *b*, and cover *c*, to exclude dust, sand, or other foreign substances, substantially as described.

3. The combination of the inclined bearing 20 or slot *a*, in which the journals of roller E operate, with the collar *o* and frame D D, joined by the threaded bolts *d d* and nuts *e e*, substantially as described.

4. A porous roller operating in an inclined 25 bearing or slot, by which the roller is brought in contact with the car-axle journal by its own gravity, for the purpose of continuously receiving, conveying, and serving the lubricant re- 30 posing in the bottom of the car-axle box to the journal of the car-axle.

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Witnesses:

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