

(No Model.)

H. M. GOODMAN.
AXLE LUBRICATOR.

No. 465,368.

Patented Dec. 15, 1891.

Fig. 1.

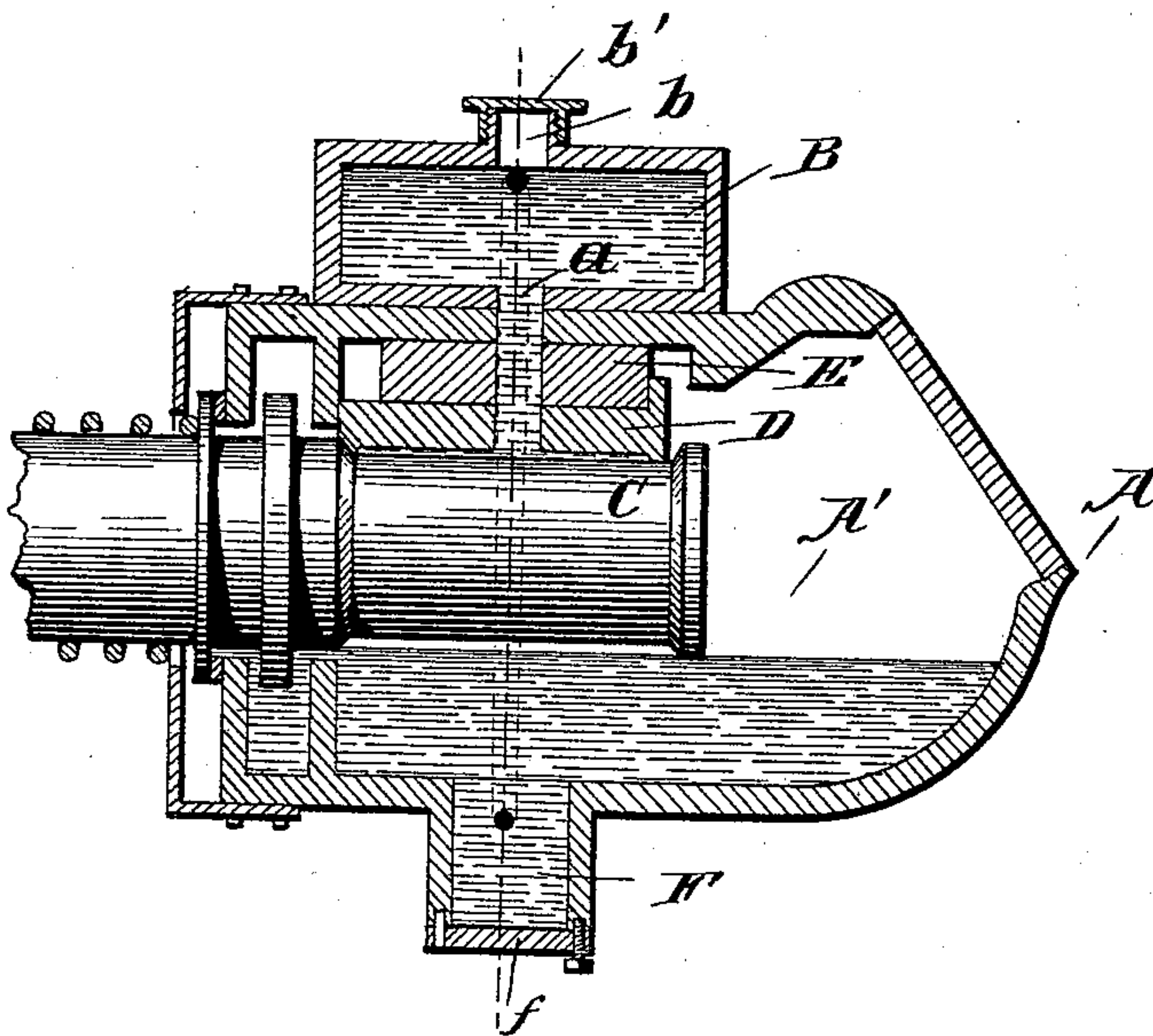


Fig. 2.

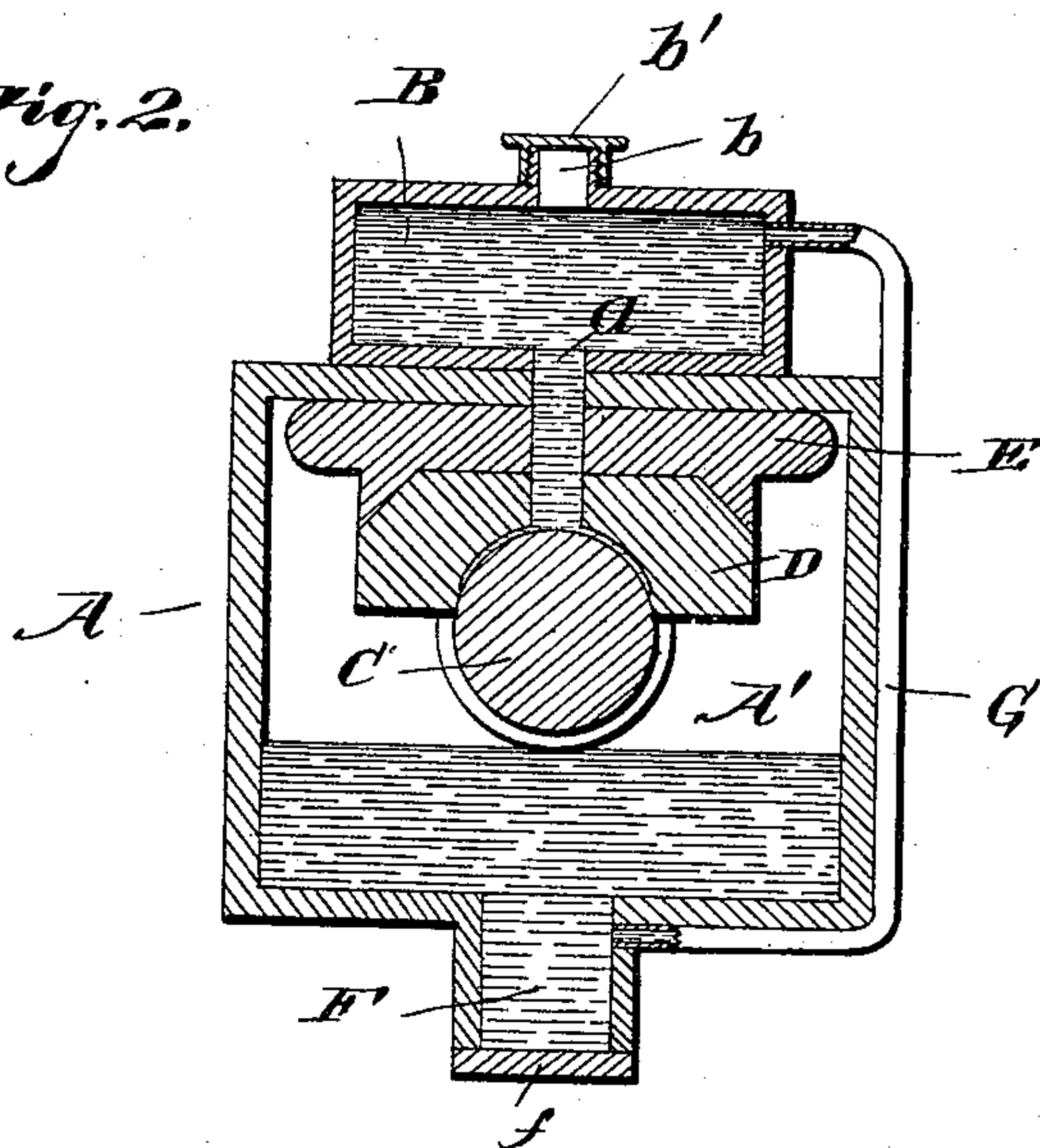
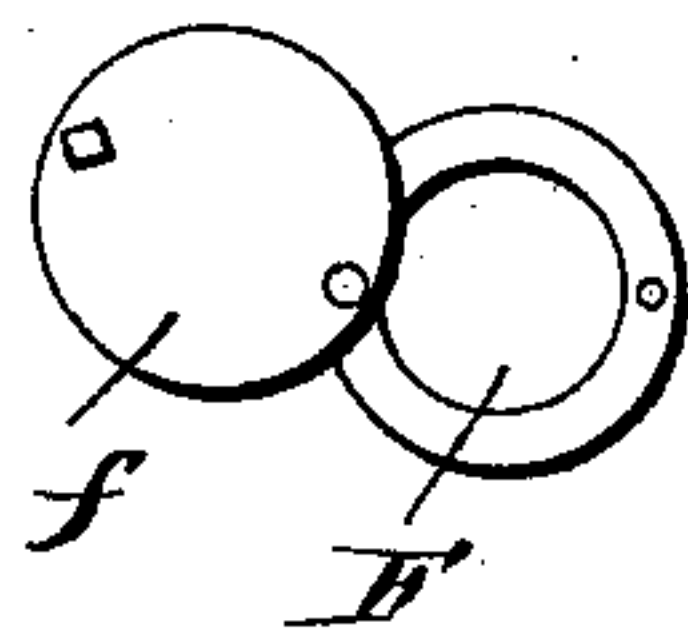


Fig. 3.



Witnesses
Samuel Ker.
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UNITED STATES PATENT OFFICE.

HENRY M. GOODMAN, OF LOUISVILLE, KENTUCKY.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 465,368, dated December 15, 1891.

Application filed June 29, 1891. Serial No. 397,840. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. GOODMAN, a citizen of the United States, and a resident of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Lubricators for Axle-Boxes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical longitudinal section. Fig. 2 is a vertical transverse section on line *f*, and Fig. 3 is a detail view.

This invention has relation to certain new and useful improvements in lubricators for axle-boxes; and it consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, illustrating the invention, the letter A designates the axle-box, having the oil chamber or reservoir A' at its lower portion directly below the axle. A box or oil-reservoir B is also placed on the upper portion of the axle-box, and is provided at its lower portion with an aperture *a*, which communicates with the axle C through registering perforation in the brass D and wedge E.

The central lower portion of the oil-chamber A' is offset downwardly, forming a well F, with which communicates one end of a pipe G, the opposite end of which communicates with the upper portion of the reservoir B. This offset or well F, which is located directly under the axle, serves to collect and retain the sediment of the oil, and this sediment may at any time be removed and the well cleaned by removing the pivoted cap *f* thereof. The pipe G, communicating at its mouth preferably at the point of junction of the well with the oil-chamber, is in such a position that so long as any oil remains in the lower reservoir it will be drawn up to the upper reservoir. Were this pipe made to communicate direct with the lower portion of the box, or were it placed inside thereof, no

well being provided to receive the sediment with its mouth near the bottom, it would become choked with the sediment, and if placed with its mouth at some distance from the bottom away from the sediment the oil in the lower portion of the box would not be utilized. I also prefer to locate the pipe G on the outside of the box, for the reason that if placed inside in proximity to the wedge it will be heated by the heat from the bearing-surfaces to such an extent that any air which is therein will be expanded, preventing the oil from flowing freely from the lower to the upper reservoir.

The box B is provided with a filling-aperture *b*, which is closed by an air-tight cap *b'*. The chamber A' is filled with oil up to the axle, and the box B is also filled and the cap *b'* screwed down air-tight.

When the car is in motion, the oil from the reservoir B feeds through the openings in the wedge and brass to the axle, thus creating a vacuum in the upper portion of said reservoir, which, aided by the suction of the revolving axle, will draw oil from the chamber A' up through the pipe G into said reservoir, keeping it filled as long as any oil remains in said chamber. The waste from the axle falls back into the chamber A', to be again drawn up into the reservoir B.

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

1. The lubricator for axle-boxes, comprising the oil-reservoir located on the upper portion of the box, the oil-chamber below the axle in said box, and a vacuum or suction feed-pipe located outside of said box and communicating at one end with an offset or well at the lower portion of the oil-chamber in the lower portion of the box and at its opposite end with the upper portion of the oil-reservoir on top of the box, said oil-reservoir having a filling-plug and a feed communication between said oil-reservoir and the axle through the brass and wedge, substantially as specified.

2. The axle-box or lubricator comprising the box having the oil chamber or reservoir directly below the axle, having at its lower

portion a downward offset or well leading from
said chamber, the closing device pivotally se-
cured to said well and forming the bottom
thereof, an air-tight oil box or reservoir on the
5 upper portion of the axle-box and having a
feed communication with the axle, and a pipe
communicating at one end with said upper
reservoir at its upper portion and at its oppo-

site end with said well, said pipe being located
outside of the box, substantially as specified. 10

In testimony whereof I affix my signature in
presence of two witnesses.

H. M. GOODMAN.

Witnesses:

HERMAN W. METZNER,
C. LEWIS DIEHL.