

(No Model.)

H. M. GOODMAN.
AXLE LUBRICATOR.

No. 464,824.

Patented Dec. 8, 1891.

Fig. 1.

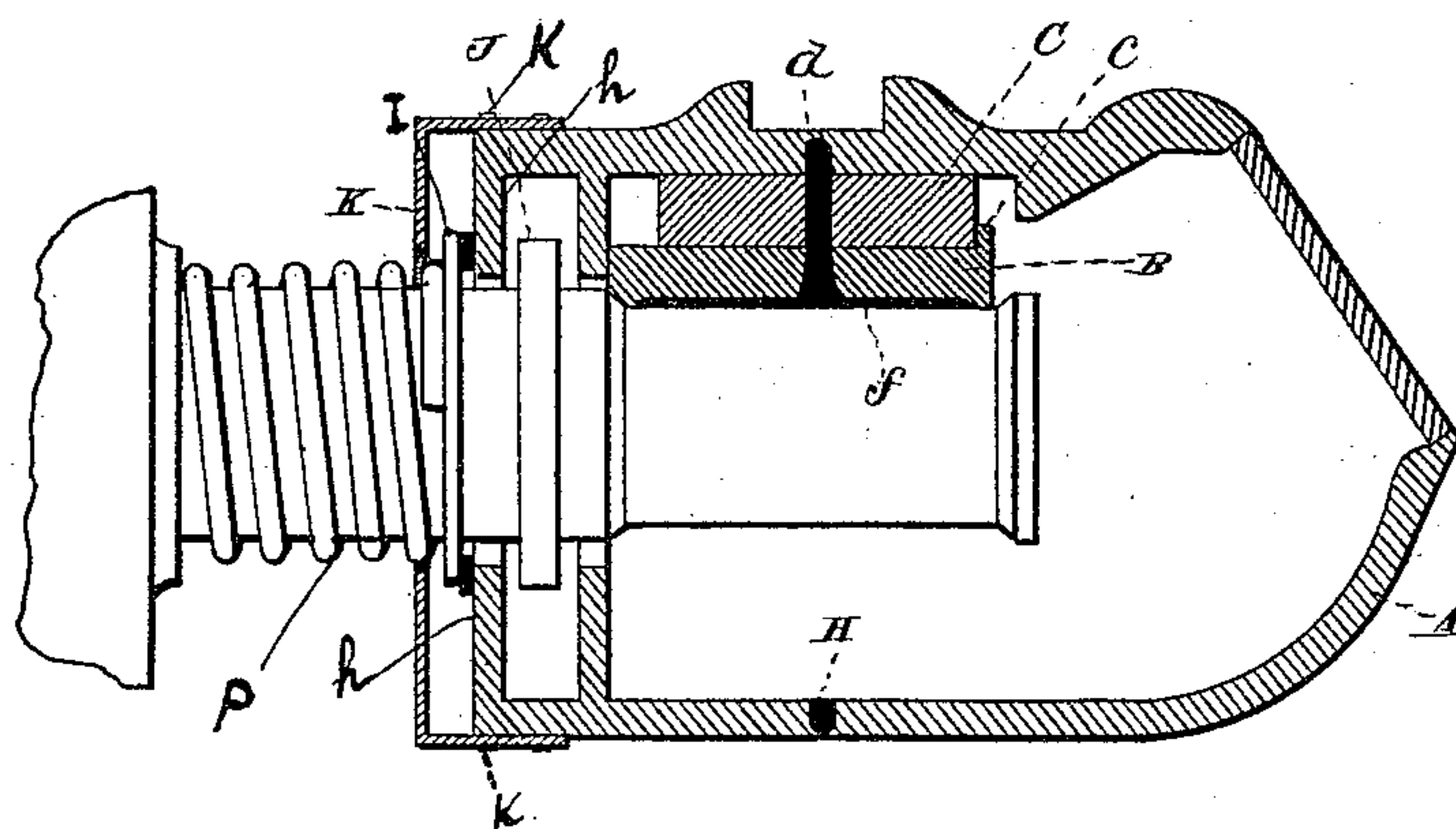


Fig. 2.

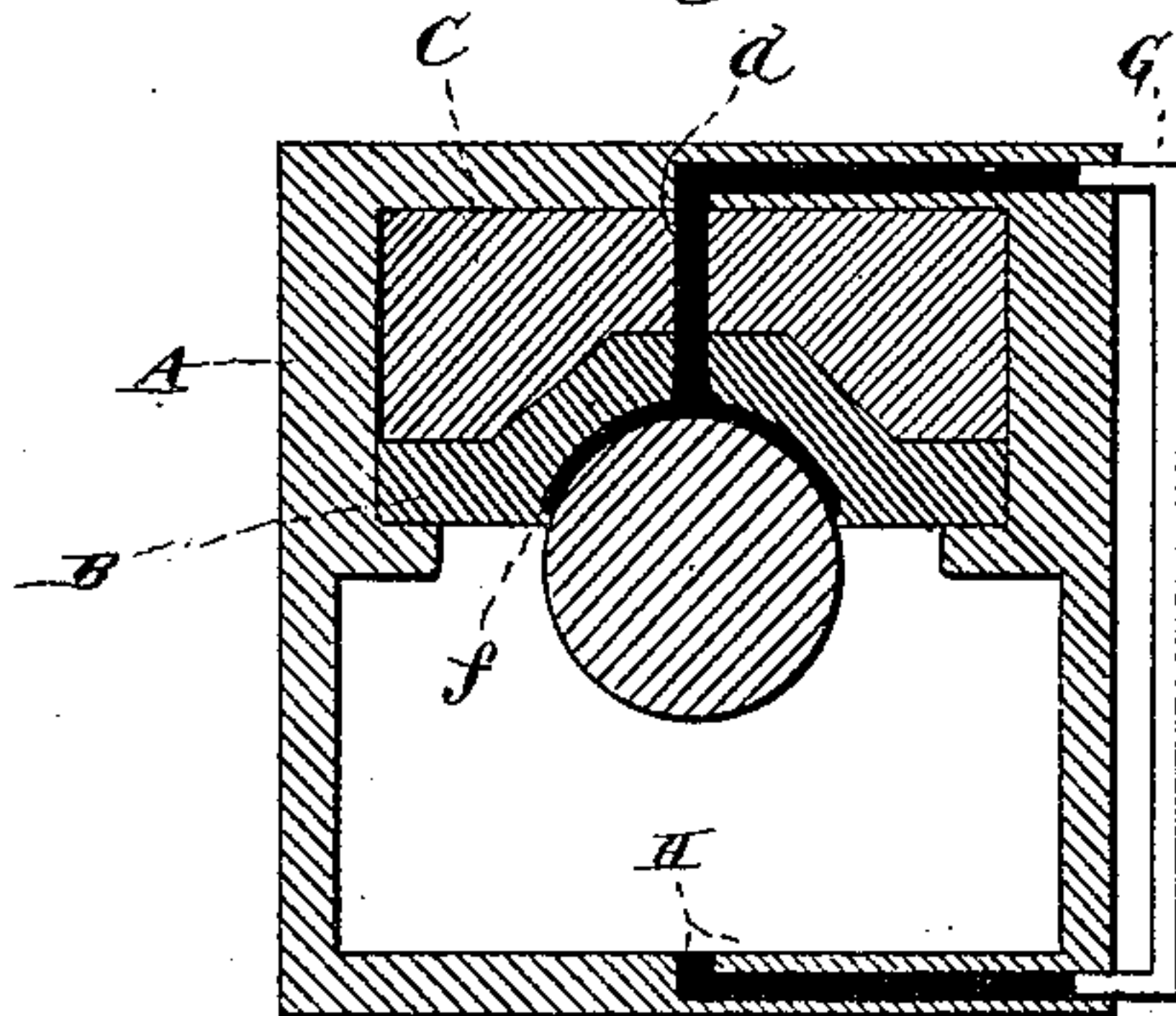


Fig. 4.

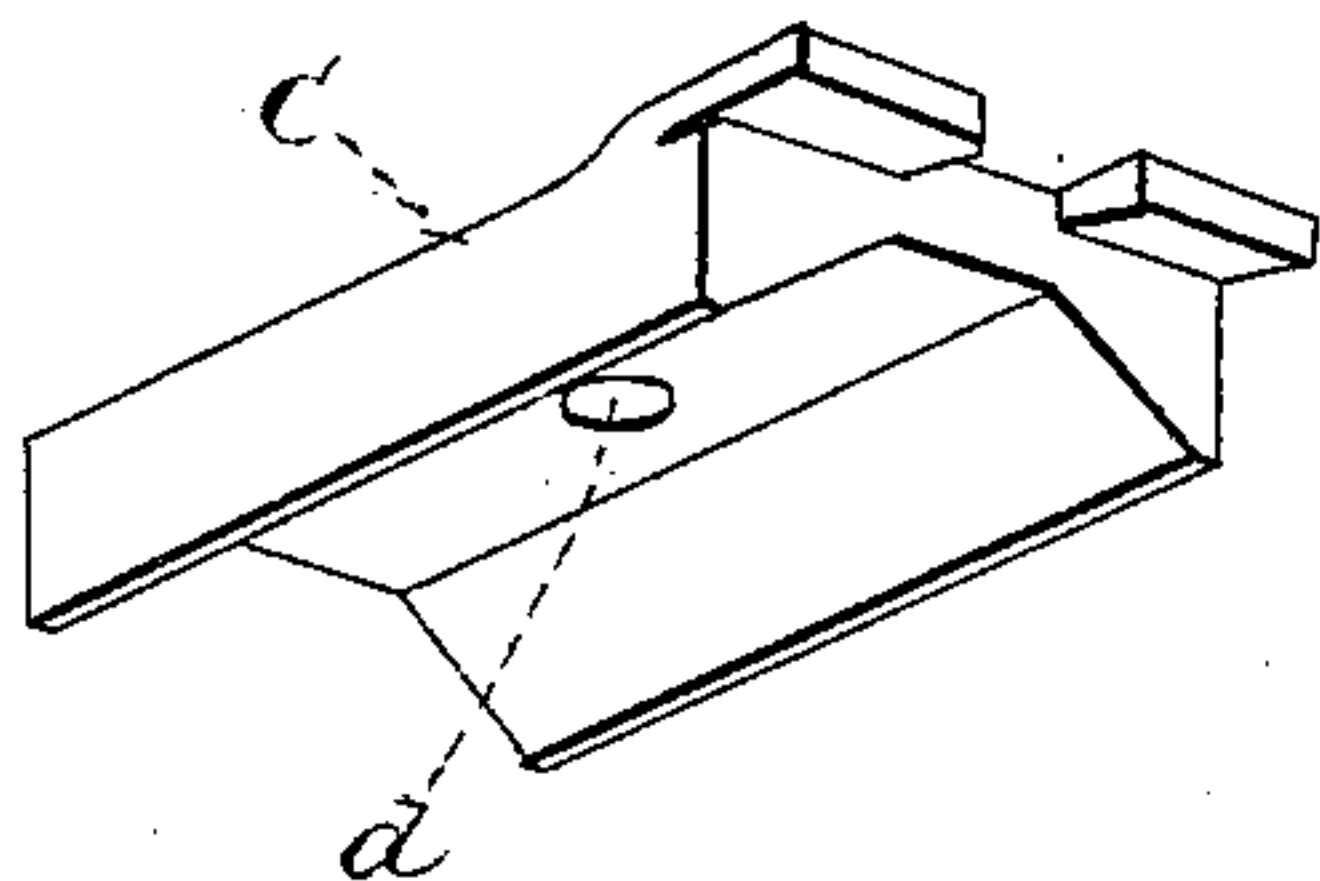


Fig. 5.

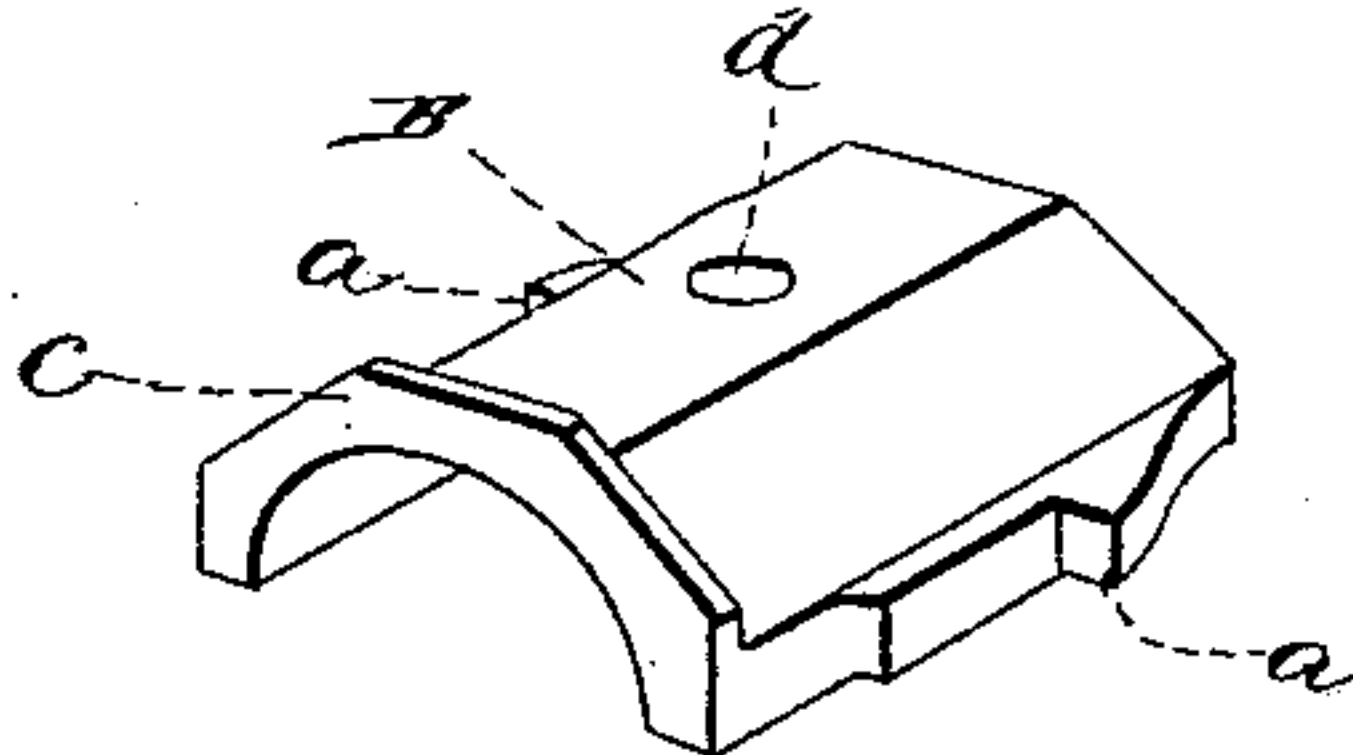
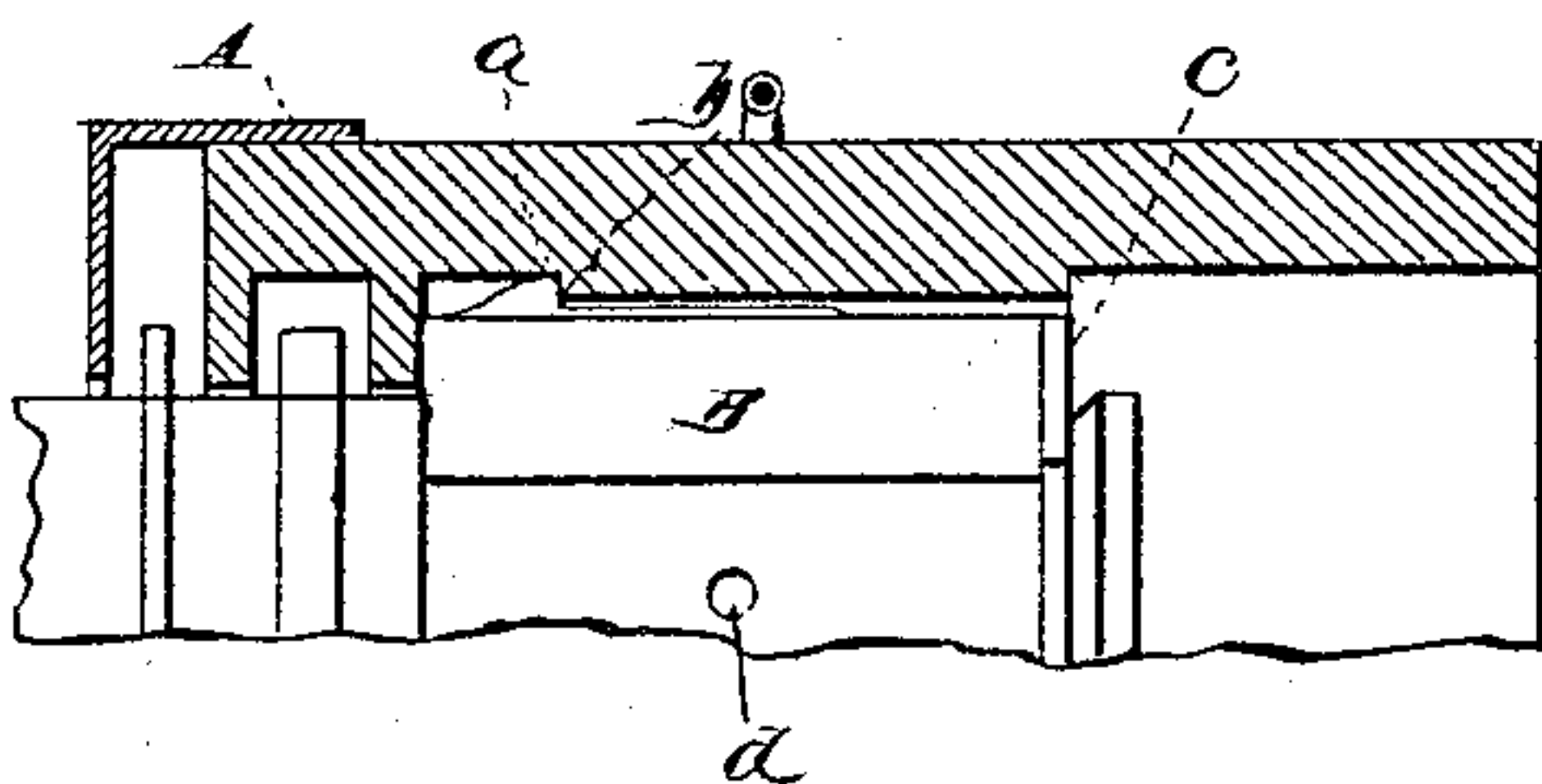


Fig. 3.



WITNESSES:

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HENRY M. GOODMAN, OF LOUISVILLE, KENTUCKY.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 464,824, dated December 8, 1891.

Application filed May 29, 1891. Serial No. 394,530. (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 Car-Axle Lubricators; 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, and Figs. 3, 4, and 5 are detail views.

This invention has relation to car-axle lubricators; and it consists in the novel construction and arrangement of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter A designates the box, B the brass, and C the wedge. The brass B has formed thereon near one end the shoulders *a*, which engage projections (not shown) formed on the box and prevent it slipping forward. A flange *c*, formed at the opposite end, engages the end of the wedge for the same purpose. The general formation of the wedge and brass is such as to hold them securely in place. The upper surface of the brass is of angular convex form and fits closely in the angular concave under surface of the wedge. A registering aperture *d* is formed through both the wedge and brass, communicating at the central concave under surface of the brass with a recess or groove *f*, which terminates short of the lateral and longitudinal edges thereof and serves as a chamber to conduct the lubricant along the surface of the axle. Communicating with the aperture *d* of the wedge is a pipe G, which passes along in the upper wall of the box to the side where it passes down and along the under side, entering the lower wall of the box and communicating with an oil-reservoir H in the bottom portion of the box; or the pipe may lie entirely outside of the box communicating directly with the apertures *d* and the reservoir.

The weight of the car will serve to always cause the aperture in the top of the box through which the pipe G passes to register with the aperture *d*.

When the car is in motion, the revolution of the axle creates a vacuum in the pipe G, causing the oil from the chamber of the bottom of the box to be forced or drawn through said pipe and through the wedge and brass to the axle, which will be kept thoroughly lubricated. The drip from the axle falls back into the reservoir to be again drawn up.

I also provide a dust-guard for the axle-box, which consists of an outer ring I, preferably of metal, loosely surrounding the axle at the point where it enters the box. An inner ring J, preferably of rubber, is also provided loosely surrounding the axle and held in place by the flanges *h*, formed in the box. An outer hood or jacket K is slipped over the rear end of the box and held in place by screws *k* or other suitable means. This, together with the rings, effectually prevents the entrance of dust to the box. To maintain the position of this guard, a spring P may be coiled around the axle, bearing against the wheel and the outer surface of the ring I. This ring may also have an inner lining of rubber or other suitable material.

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

1. In a car-axle box, the combination, with the shell or casing, of the wedge held therein, said wedge having the angular convex under surface and the brass having the upper convex angular surface fitting in the concavity of the wedge, said brass and wedge having registering apertures therethrough and communicating with a longitudinal groove or recess in the under surface of said brass, said groove or recess forming an oil-chamber adjacent to the surface of the axle, substantially as specified.

2. In a car-axle box, the combination, with the shell or casing, of the brass and wedge held therein, said brass having near one end shoulders *a*, adapted to engage the box, and a flange *c*, adapted to engage the wedge, the upper surface of the brass having an angular convex form, the wedge having an angular

convex under surface fitting the concavity of the brass, said brass and wedge having registering apertures therethrough communicating with a longitudinal groove or recess
5 formed in the under surface of the brass, substantially as specified.

3. A car-axle box having an oil-reservoir in its lower portion in which the axle turns, a vacuum or suction pipe communicating with
10 the lower portion of said reservoir and extended outside the box to the upper portion thereof, where it communicates with registering apertures formed through the brass and

wedge, the under surface of the brass having a longitudinal groove or recess with which 15 said apertures communicate, said groove or recess forming an oil-chamber adjacent to the surface of the axle, substantially as specified.

In testimony whereof I affix my signature in 20 presence of two witnesses.

H. M. GOODMAN.

Witnesses:

SAML. B. KIRBY,
JOSEPH SHORT.