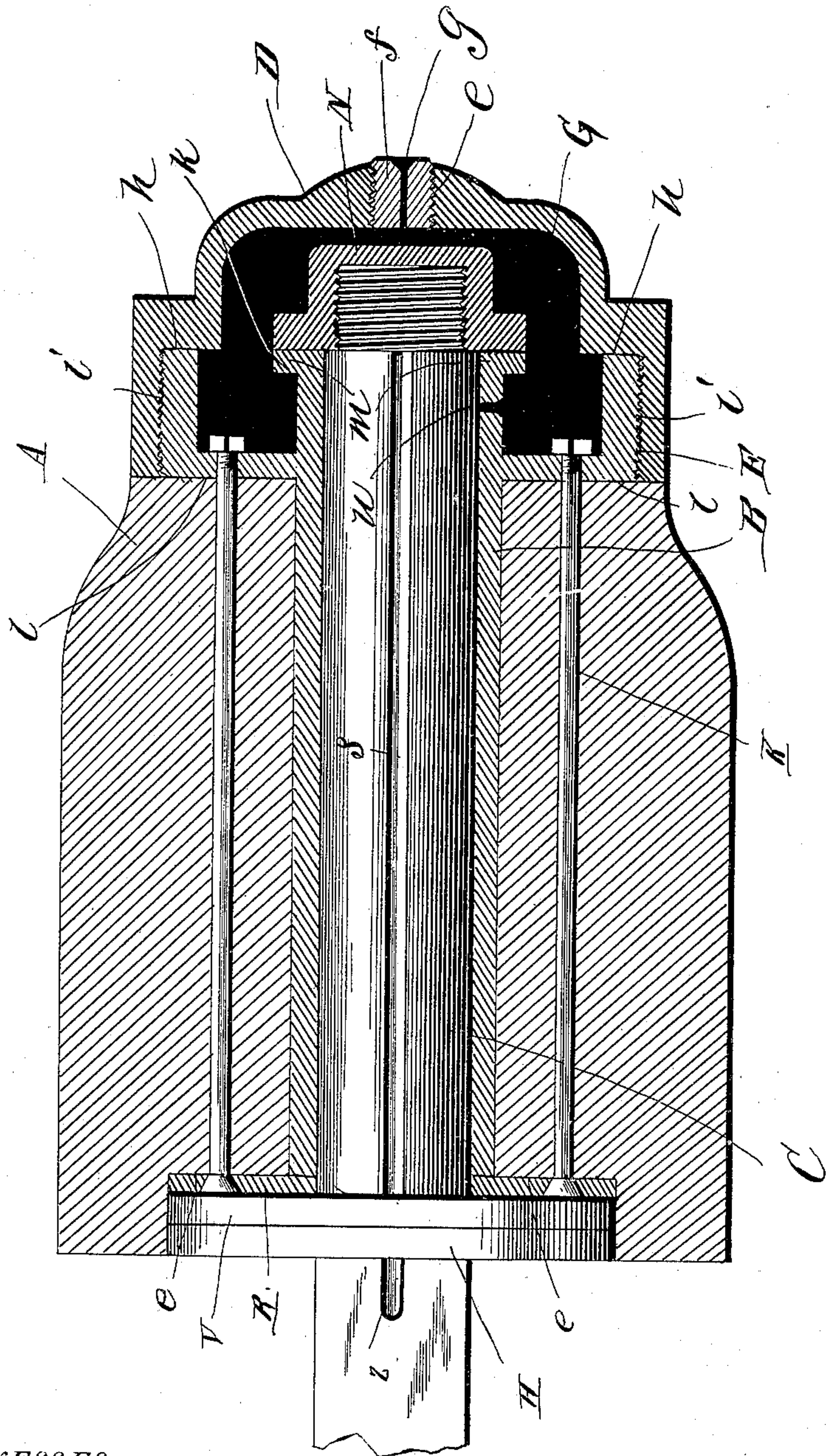


(No Model.)

H. M. GOODMAN.
AXLE LUBRICATOR.

No. 409,573.

Patented Aug. 20, 1889.



WITNESSES
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UNITED STATES PATENT OFFICE.

HENRY M. GOODMAN, OF LOUISVILLE, KENTUCKY.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 409,573, dated August 20, 1889.

Application filed May 20, 1889. Serial No. 311,359. (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 Self-Oiling Axles; 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 drawing, and to letters or figures of reference marked thereon, which forms a part of this specification.

The figure of the drawing, is a central longitudinal section.

This invention relates to axle-lubricators; and it consists in the novel construction and combination of parts, as hereinafter specified, and pointed out in the claim.

In the accompanying drawing, the letter A designates a wheel-hub, through which is longitudinally disposed a metallic tubular boxing B for the spindle C of the axle.

D is a metallic cap having threaded opening *e* for the introduction of oil, and a threaded plug *f*, having a vent *g*, to close said opening. The cap D is internally threaded and is provided with an internal annular shoulder *h*, which abuts against the annular rim *i* of the circular threaded flange-extension E of the boxing B when the said cap is screwed circumferentially on the said extension. An oil space or reservoir G is thus formed between the cap and flange-extension E.

The boxing B is continued out at *k*, projecting beyond the vertical wall *l* of the extension E into the oil-reservoir G, and terminates in an annular flange *m* at about the middle of said reservoir. In rear of said flange through the boxing B is provided a circular funnel-shaped opening *n* for the passage of the oil to the spindle C. This spindle is provided with a circumferential or longitudinal groove *s* for distributing the oil, and said groove is extended to provide a rear

outlet *z* for the escape of any excess of oil. The end of the spindle is provided with the usual fastening-nut N, which is screwed down against the annular flange *m* of the boxing B to secure the hub on the spindle. The boxing B is secured to the hub by bolts K, extending longitudinally through said hub, connecting the ring-plate R in the rear to the vertical wall *e* of the flange-extension E in front where the fastening-nuts are provided. A washer V is interposed between the collar H of the axle and the ring-plate R to prevent undue friction of the collar. When the lubricator is in use, the reservoir G is about half full of oil, and the revolution of the wheel-hub causes an occasional drop or two of oil to fall in the funnel-shaped opening *n* of the box-extension, through which it passes into the grooves of spindle C, whence it is distributed throughout the boxing, any excess of oil escaping by the outlet *z* in rear of the spindle. The cap D of the reservoir G also serves to prevent loss of the axle-nut if the latter should work loose on the spindle, and also prevents the entire disengagement of the hub from said spindle.

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

The combination, with a grooved axle-spindle, of a hub having a boxing surrounding the inner bore of the hub and formed with a vertical extension inward a short distance from its outer end extension, which outer end extension has a lubricant-aperture, while said vertical extension has a horizontal peripheral extension fitted with a chambered cap, and the said outer end extension has fitting against it a cap screwed upon the axle-spindle, substantially as set forth.

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

HENRY M. GOODMAN.

Witnesses:

S. P. WALKER,

GEO. C. STAUBER.