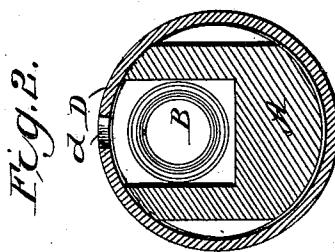
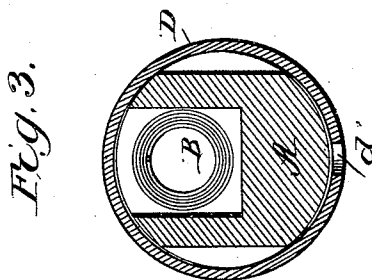
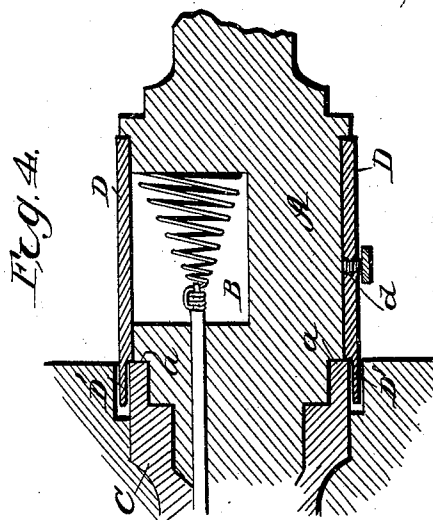
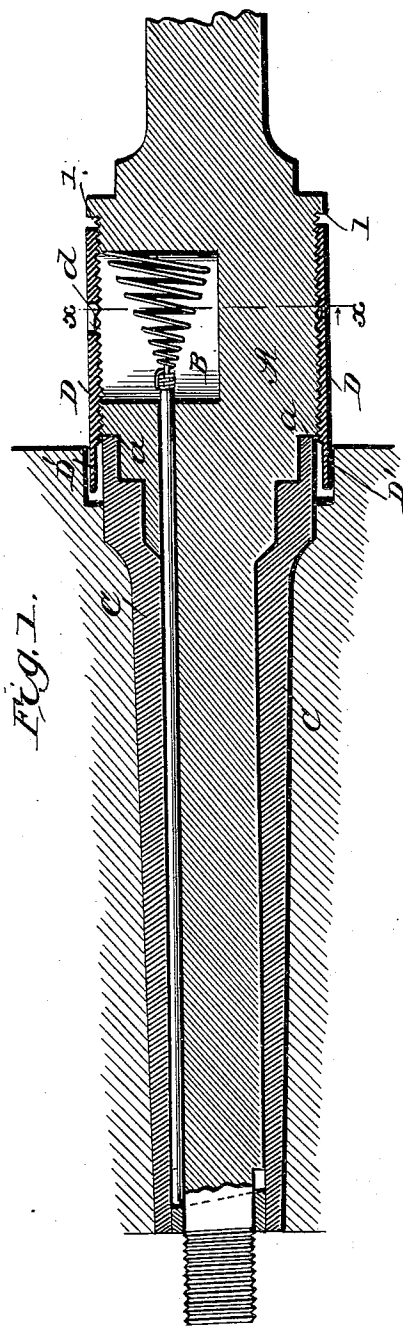


(No Model.)

J. S. PATTEN.
AXLE LUBRICATOR.

No. 475,147.

Patented May 17, 1892.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JAMES S. PATTEN, OF BALTIMORE, MARYLAND.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 475,147, dated May 17, 1892.

Application filed October 22, 1891. Serial No. 409,466. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. PATTEN, of Baltimore city, in the State of Maryland, have invented a new and useful Improvement in Axle-Lubricators, of which the following is a specification.

My invention is an improvement in axles, and especially in that class of axles provided with a reservoir for oil, and constructed to feed oil from said reservoir to the spindle or bearing for the wheel, seeking to provide a novel cover for said reservoir; and the invention consists in certain novel constructions and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the drawings, Figure 1 is a vertical longitudinal section of an axle provided with my improvements. Figs. 2 and 3 are cross-sections on the line $x x$, Fig. 1, showing the cover-band adjusted to set its opening respectively into and out of register with the reservoir; and Fig. 4 shows a somewhat different construction from that shown in Figs. 1, 2 and 3.

The axle A is provided with a reservoir B, adapted to contain oil, and in the construction shown the spindle portion of the axle is grooved to receive a rod, which extends into the oil-reservoir, and means are provided for reciprocating such rod as the wheel turns on the spindle, so that the oil in the reservoir will be supplied to the spindle or bearing as desired. The box C is fitted on the spindle and extends at its inner end nearly to the reservoir B, and bears at such inner end against a shoulder a . The cover D for the reservoir encircles the axle and fits over the reservoir, as shown. This cover D is in the nature of a band or sleeve and is provided with an opening d , which is movable into and out of register with the reservoir. When the cover D is moved to set the opening d into register with the reservoir, as shown in Fig. 1, the reservoir may be filled through such opening, and if the cover be adjusted to the position shown in Fig. 3 the cover will close the reservoir, as will be readily seen.

In securing the band in place it is preferably threaded internally and turned onto threads formed on the axle, as shown most clearly in Fig. 1, and when the cover-band is turned tightly up against the shoulder 1 the

band will be held in such position to close the reservoir, as will be understood from Fig. 1. In turning the cover-band a wrench similar to an ordinary hose-wrench, having a point or prong to enter the opening d , may be employed.

While it may be preferred to thread the cover-band onto the axle, it is obvious that, if desired, it may be simply fitted on the axle, as shown in Fig. 4, without threads, and be held with its opening d out of register with the reservoir by means of a clamping-screw turning in the opening d and arranged to bind against the axle, as shown in said Fig. 4.

At its outer end the cover-band is formed at D' to fit over the inner end of the box and projects slightly into the hub, thus forming an efficient sand-band, as will be readily understood.

An air-vent may be suitably provided. In Fig. 1 it is shown as provided by cutting out the whole or part of a round of thread leading to the opening d .

Having thus described my invention, what I claim as new is—

1. An improved axle-lubricator, substantially as described, comprising the axle chambered to form an oil-reservoir and having along said chambered portion external threads and the cover consisting of a band having internal threads meshing those of the axle and provided with an opening movable into and out of register with the reservoir, all substantially as and for the purposes set forth.

2. The improvement in axle-lubricators, substantially as described, consisting of the axle having a spindle portion and provided with an oil-reservoir and an opening or passage leading from said reservoir to the spindle, the box fitted on the spindle of the axle, and the cover-sleeve placed on the axle over the reservoir and having an opening which may be set into or out of register with the said reservoir, the outer end of the cover-sleeve being fitted over the inner end of the box, all substantially as and for the purposes set forth.

3. In an axle-lubricator, the combination, substantially as described, of the axle having a reservoir, the box fitted on said axle, and the cover-sleeve or band fitted on the axle over said reservoir and also fitting at its

outer end over the inner end of the box, such sleeve or band being provided with an opening movable into and out of register with the reservoir, all substantially as and for the purposes set forth.

5 4. In an axle-lubricator, the combination of the axle having a reservoir and provided with threads, the cover-sleeve or band threaded on the axle over the reservoir and having an

opening movable into and out of register with the reservoir, and the box fitted on the axle and fitted at its inner end within the outer end of the cover sleeve or band, substantially as set forth.

JAMES S. PATTEN.

Witnesses:

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