No. 733,420. PATENTED JULY 14, 1903.

T. S. PHILPOTT.

DEVICE FOR OILING AXLES.

APPLICATION FILED APR. 29, 1902.

NO MODEL.

Fig. 1

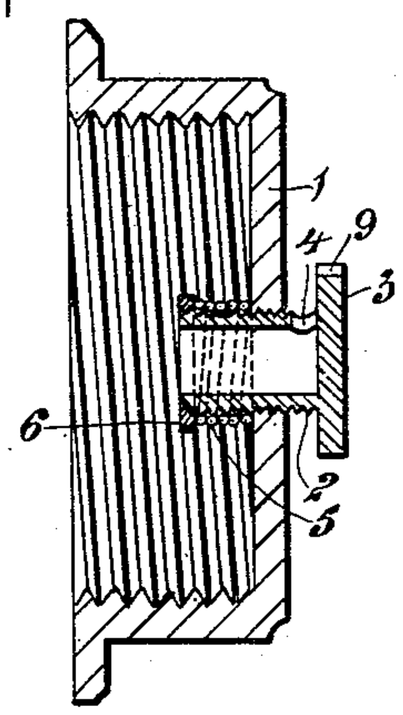


Fig. 2

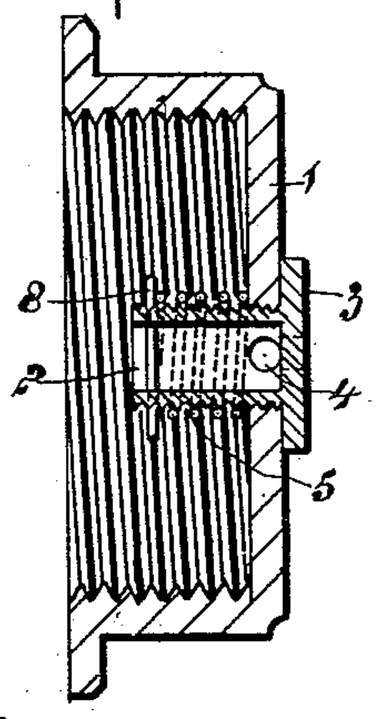


Fig. 3

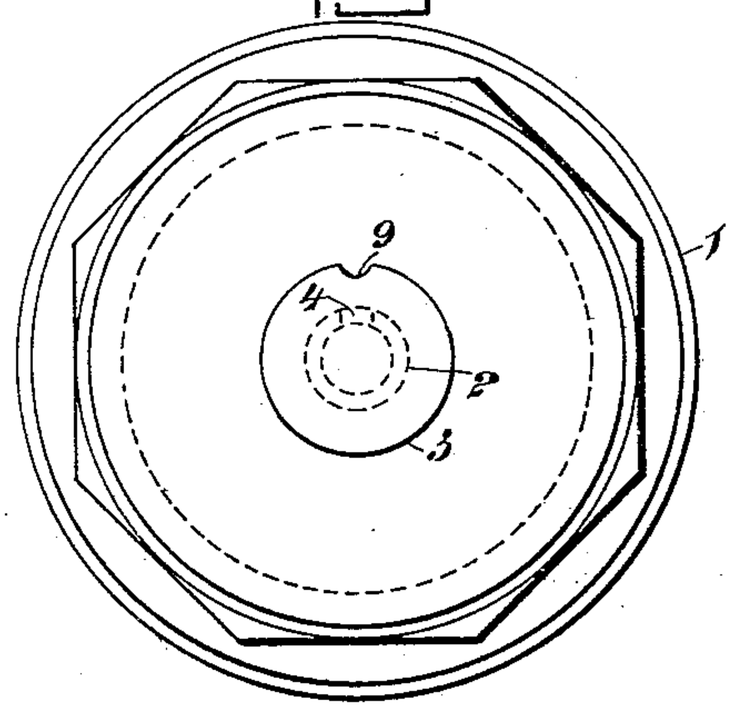


Fig. 4

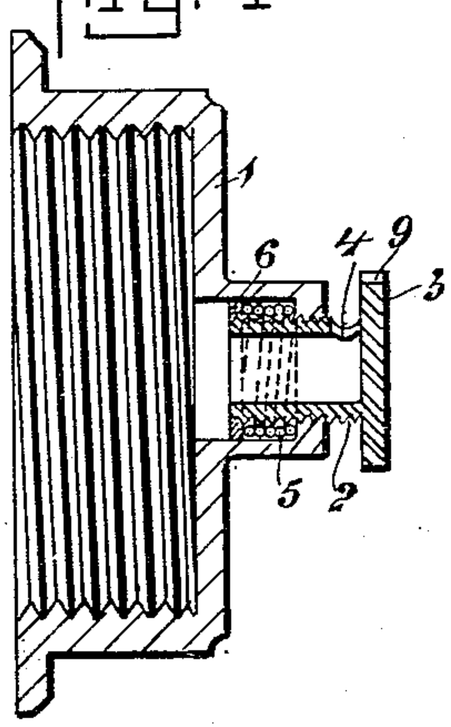
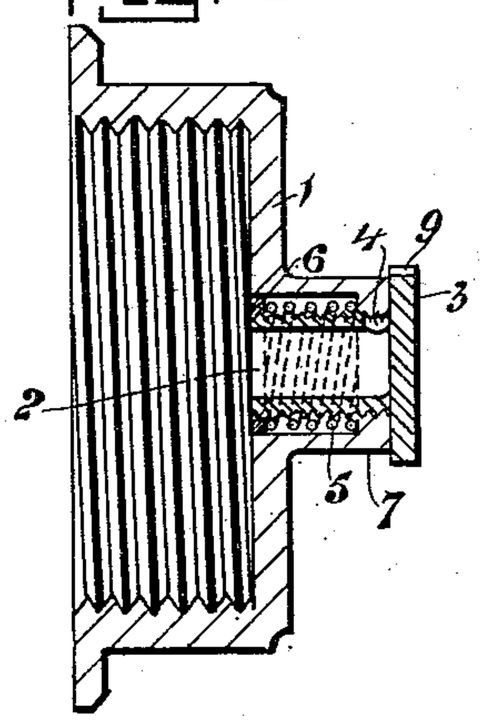


Fig. 5



Witnesses.
E. S. Baldwin
J. H. McIlvray.

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Thomas Stanley Philpott
by his Attorney.
Henry H. Hayward.

No. 733,420. Patented July 14, 1903.

UNITED STATES PATENT OFFICE.

THOMAS STANLEY PHILPOTT, OF NEWTOWN, NEW ZEALAND.

DEVICE FOR OILING AXLES.

SPECIFICATION forming part of Letters Patent No. 733,420, dated July 14, 1903.

Application filed April 29, 1902. Serial No. 105,160. (No model.)

To all whom it may concern:

Be it known that I, THOMAS STANLEY PHILPOTT, a subject of His Majesty the King of Great Britain and Ireland, residing on Mein street, Newtown, in the Provincial District of Wellington, in the Colony of New Zealand, have invented a new and useful Improved Device for Oiling Axles of Vehicles, of which the following is a specification.

By my invention the axle of a vehicle can be readily oiled without removing the cap of the axle-box, as has been necessary hitherto, and the oiling effected without waste of oil, which was unavoidable when the oiling was done by removing the cap, filling or partly filling it with oil, and then screwing it into position. Further, when the cap was removed and filled or partly filled with oil some of the the oil reached the screw-thread of the cap, with the result that frequently it would not remain in position when jarring over a road.

According to my invention the usual cap is pierced with a hole, preferably near the center, and this hole is screw-threaded. Into this hole I screw a hollow plug which has a head preferably circular in shape and milled on its edge. Immediately behind the head I provide a hole communicating with the interior of the plug. The screw of the plug is made sufficiently long to project inside the cap and take a spiral spring, which is retained on the stem by a split pin or other suitable device. To oil the axle, the plug is withdrawn until the hole behind the head is exposed, and oil is then poured through this hole into the interior of the plug and whence it finds its way into the cap. After the oiling is finished the plug is screwed back, where it is held from shaking out by the spring.

The accompanying drawings illustrate the invention.

Figure 1 is a section of an axle-cap fitted with my plug shown in its open position; Fig. 2, a similar section with the plug closed; Fig. 3, a front view; Fig. 4, a section showing a modification with the plug open, and Fig. 5 a similar view with the plug closed.

Referring more particularly to Figs. 1 and 2, 1 is an ordinary axle-cap. Into this cap I introduce the hollow screw-plug 2 by piercing the cap at or near its center and screw-threading the hole. 3 is the head of the plug, which is milled around its edge to give a grip for the fingers. 4 is the oil-hole immediately behind the head. 5 is a spiral spring. In Fig. 1 this spiral spring is held on the plug by the collar 6, which is screwed or soldered upon the inner end of the plug, the spring being in compression between the collar 6 and the cap. In Fig. 2 the spring is kept upon the plug by the pin 8.

By the modification shown in Figs. 4 and 5 the plug when screwed up does not project into the interior of the cap, and this form is thus adapted for use with axles which project into the cap. 7 is a hollow boss formed integral with or fixed to the cap. A notch 9 or other mark is made upon the edge of head 3 to indicate the position of the hole 4 when the plug is closed.

To oil the axle, the cap is unscrewed by the fingers to the position shown in Figs. 1 and 4, and oil is then poured through the hole 4 into the hollow interior of the plug, whence it flows into the cap and to the axle. After oiling, the plug is screwed into the position shown by Figs. 2 and 5, where it is held from unscrewing by the compressed spring 5.

I am aware that a hollow cap having a hole for admission of lubricant has been previously used, but in a form which makes it easy for the oil to escape during the time it is being supplied to the cap and afterward. In my invention the axle-cap forms a reservoir, and so long as the oil therein is kept below the level of the screw-plug 2 it does not leak through the screw-threads of the plug.

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

1. The combination for the purpose indicated of an axle-cap, provided axially with a screw-threaded hole, a hollow cylindrical plug screwed externally throughout its length and adapted to fit said hole, there being a

milled head upon the outer end of said plug and a hole behind the head communicating with the interior of the plug as set forth.

2. In combination with an axle-cap, a hollow plug screwed into the cap, there being a milled head upon the plug, and a hole behind the head communicating with the interior of the plug, a spiral spring in compression upon the plug, means for keeping the spring upon the plug and there being a notch on the head of the plug to indicate the position of the said hole, substantially as set forth herein.

In witness whereof I have hereunto set my hand in presence of two witnesses.

THOMAS STANLEY PHILPOTT.

Witnesses:

E. S. BALDWIN,

E. J. ANSTISS.