No. 715,367. Patented Dec. 9, 1902.

F. T. GILES.

AXLE CAP.

(Application filed Oct. 18, 1901.)

(No Model.)

Fig. 3.

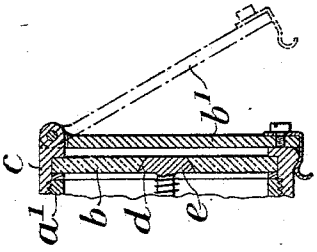


Fig. 2.

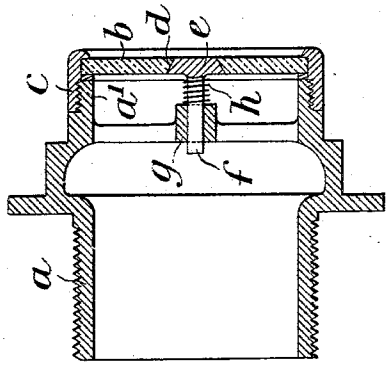
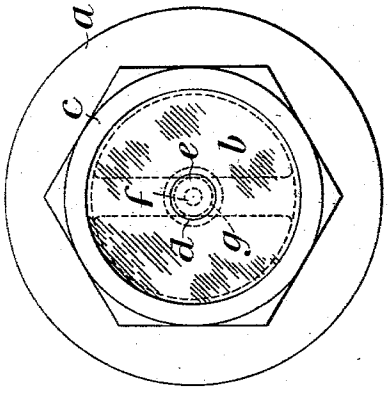


Fig. 1.



Witnesses.

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UNITED STATES PATENT OFFICE.

FREDERICK THEOPHILUS GILES, OF BRISTOL, ENGLAND.

AXLE-CAP.

SPECIFICATION forming part of Letters Patent No. 715,367, dated December 9, 1902.

Application filed October 18, 1901. Serial No. 79,096. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK THEOPHILUS GILES, a subject of the King of Great Britain, residing at Durdham Park, Bristol, England, have invented new and useful Improvements in Axle-Caps, of which the following is a specification.

This invention relates to an improved cap or cover for axles, chiefly for carriages, traps, wagons, buses, perambulators, railway wagons or carriages, motor-cars, and other vehicles, although the invention is also applicable to machinery.

The object of my invention is to so construct such caps that it is possible to see at a glance if the necessary quantity of lubricant is contained in the box and also to provide means whereby lubricant can when necessary be introduced with facility without the necessity for removing the cap.

To this end the cap or cover is provided with a disk or sheet of glass or other suitable transparent material, which may be fixed in the front or other suitable position and is held in the cap or cover by any suitable means.

To enable the lubricant to be supplied without the necessity for removing the cap or cover, I provide the glass with a taper hole, forming a valve-seat, the said hole being normally closed from the inside by a valve.

In the accompanying drawings I have illustrated my improvements as applied to a carriage axle-cap by way of example.

In the said drawings, Figure 1 is a front elevation of the improved axle cap or cover, and Fig. 2 is a longitudinal section thereof. Fig. 3 is a view showing the transparent disk provided with a lid.

a is the cap or cover, which is adapted to be screwed into the wheel-hub in the ordinary manner, and *b* is the disk or sheet of glass or other suitable transparent material, the said disk *b* forming in this arrangement the front of the cap or cover and being held in place by means of the flanged ring *c*, which screws onto the reduced end *a'* of the cap *a*. The glass or other transparent disk *b* can be white or colored or tinted to imitate a metal—such as brass, bronze, &c.—or otherwise ornamented, and it may, if desired, be covered by an unperforated lid *b'*, which may, for example, be hinged, as shown in Fig. 3, so that it normally covers the glass surface, but can be easily lifted, as will be seen by the dotted lines, Fig. 3, to expose the same when it is desired to observe the condition of the interior of the oil-box. I prefer, however, that the glass or other transparent material should be uncovered, as it can be made of sufficient thickness to prevent breakage, which in any case is little likely to occur.

d is the taper hole, which is formed in the glass disk *b*, and *e* is the valve, which fits in the said hole *d*, the said valve being provided with a stem *f*, which is held in a bearing *g*, inside the cap or cover *a*. The valve *e* is normally held onto its seat *d* in the glass disk *b* or metal bush by means of the spring *h*, which is coiled around the stem *f* and bears against the end of the bearing *g* and the under side of the valve *e*, as shown in Fig. 2. It will be clear, however, that the feed-hole and valve may be made in any other known way and fixed in any other suitable position on the cap or cover. With this arrrngement when it is desired to introduce lubricant into the cap or cover *a* the spout of an ordinary oil-can is pressed against the valve *e*, so as to cause the spring *h* to yield under the pressure and permit the spout to pass through the hole *d*, whereupon lubricant can be introduced in the ordinary manner.

It will be clear that by my invention considerable labor is saved, as it obviates the necessity for the removal of the cap or cover and also enables an attendant at any time to observe at a glance whether a sufficient supply of lubricant is provided. Furthermore, the wear and tear of vehicles, horses, &c., is considerably reduced.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

An axle-cap comprising a hollow body open at its outer end and externally threaded, a transparent disk for closing the outer end of said body, a threaded clamping-ring engaging said body and having a flange for engaging and retaining said disk, said disk being provided with a tapering aperture forming a valve-seat and a spring-actuated valve normally engaging said valve-seat, substantially as described.

FREDERICK THEOPHILUS GILES.

Witnesses:

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