

(No Model.)

M. W. BROWN.
AXLE LUBRICATOR.

No. 391,942.

Patented Oct. 30, 1888.

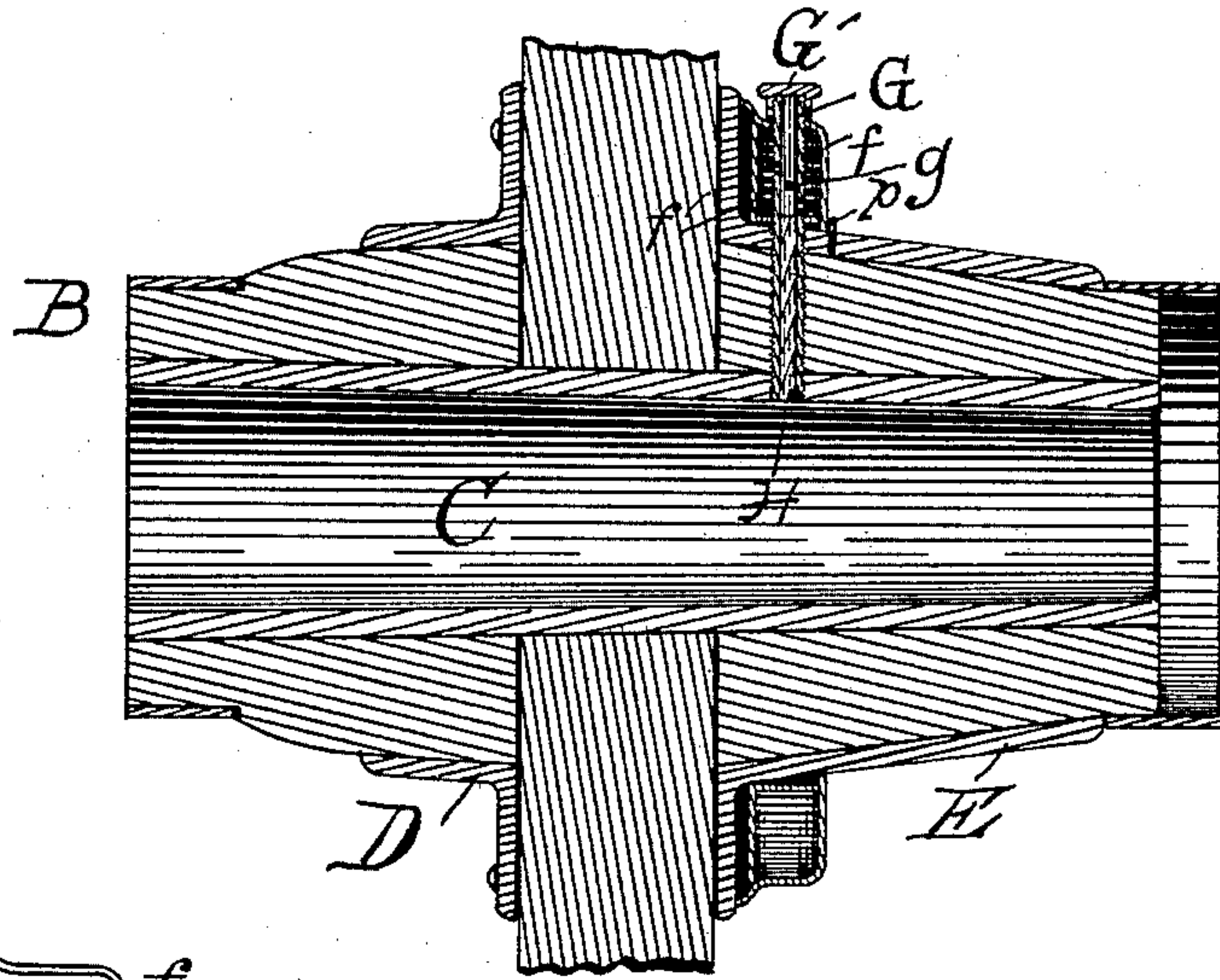


Fig. 2.

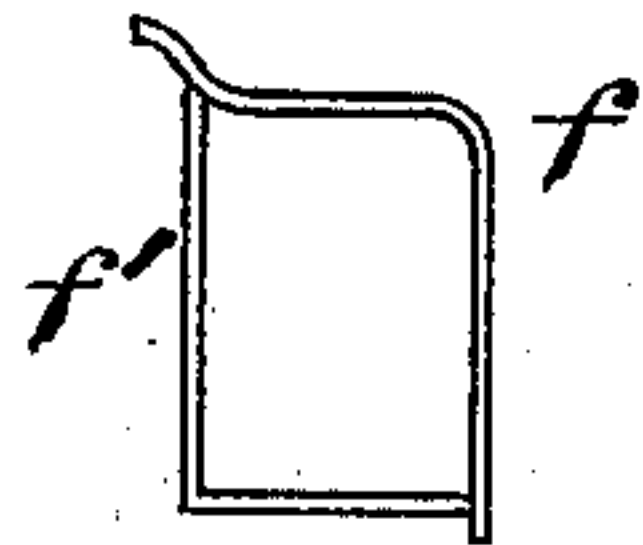


Fig. 4.

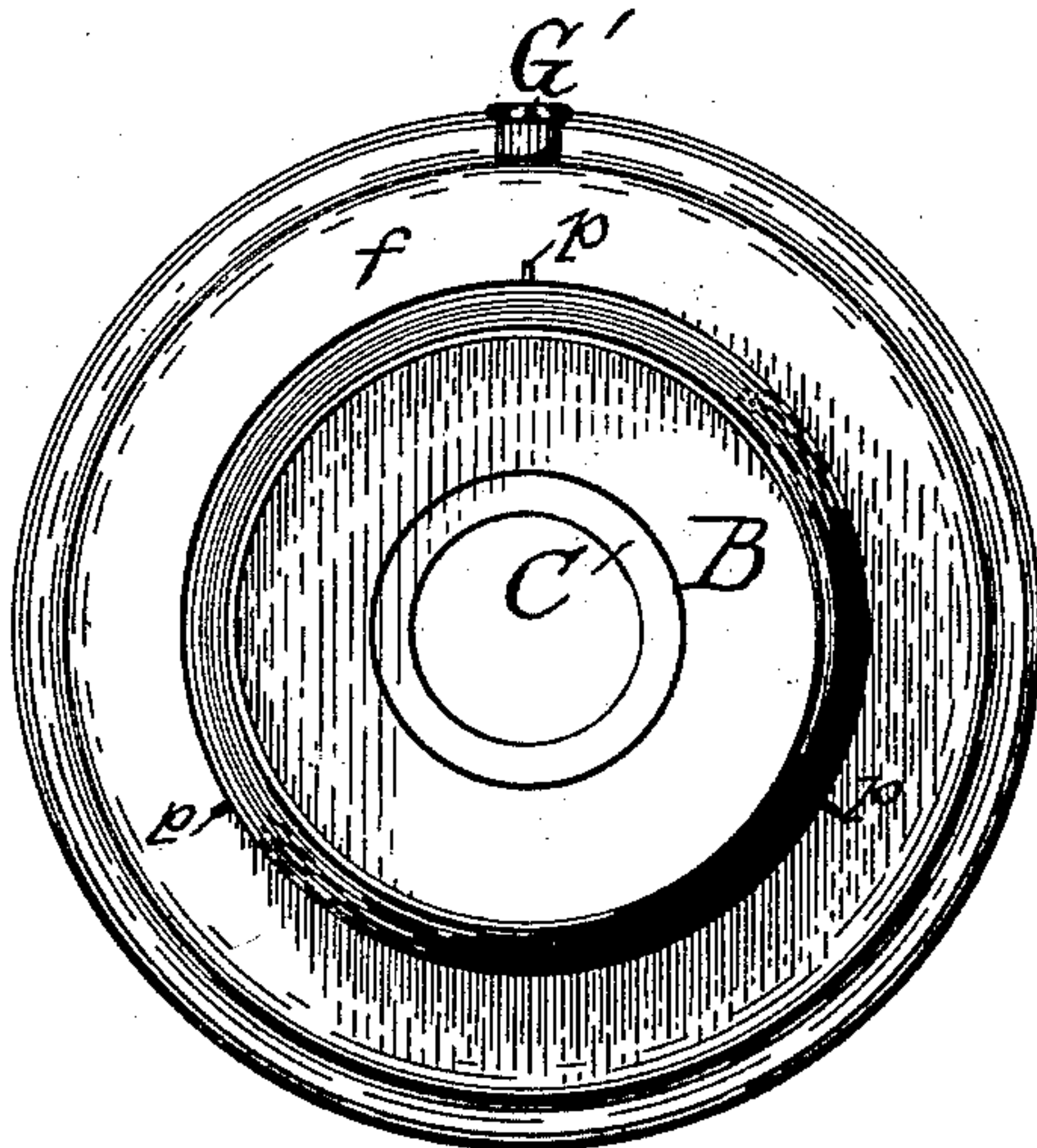


Fig. 1.

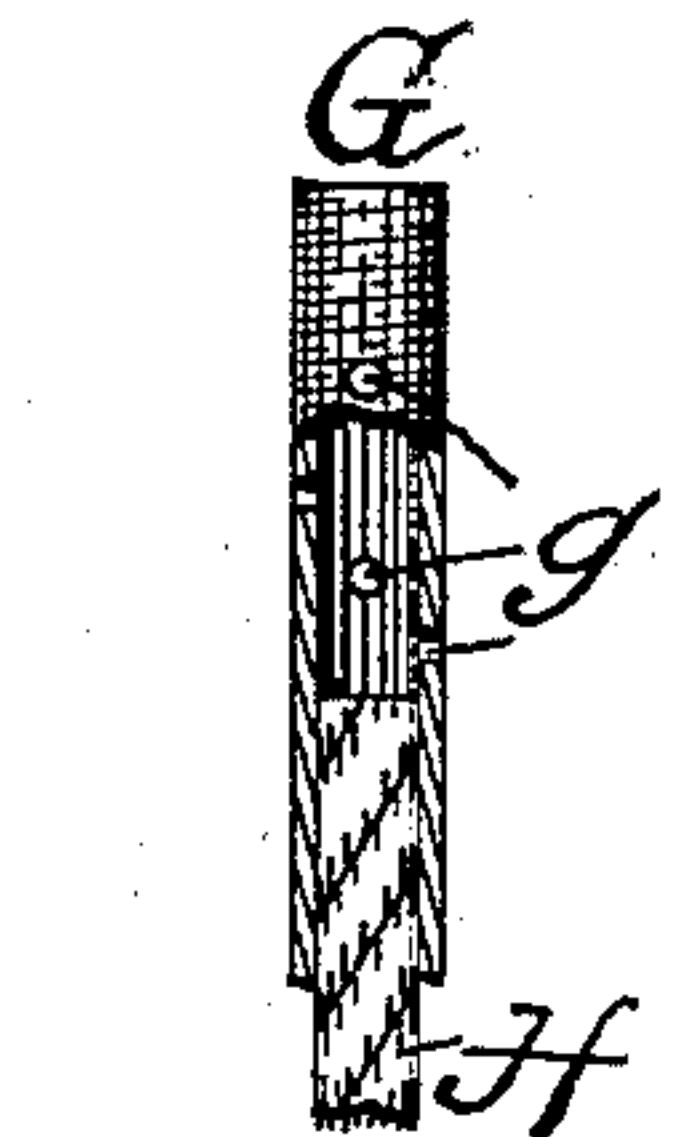


Fig. 3.

Witnesses.

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AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 391,942, dated October 30, 1888.

Application filed May 14, 1888. Serial No. 273,850. (No model.)

To all whom it may concern:

Be it known that I, MINOR W. BROWN, a citizen of the United States, residing at Gainesville, in the county of Hall and State of Georgia, have invented a new and useful Self-Oiling Vehicle-Wheel; and I do hereby 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 or figures of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a simple, reliable, and convenient attachment for vehicle-wheels that will make them self-oiling, and that will also have an ornamental appearance.

The invention therefore consists of an annular chamber encircling the hub and means for filling the same and for discharging the lubricant on the axle-spindle, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is an end view of the hub of a vehicle-wheel, showing the external appearance of the device. Fig. 2 is a central longitudinal section through the hub, the spokes, the annular chamber, and the filling and feeding tube, showing also the wick through which the oil is carried to the axle-spindle. Fig. 3 shows the outer end of the tube and wick somewhat enlarged. Fig. 4 shows the contour of a cross-section and the joining of the two parts of the annular chamber.

In the several figures, like reference-marks referring to corresponding parts in the several views, the hub B is shown of an ordinary construction—that is to say, having an axle-box, C, and flanged thimbles D and E, to more securely hold the spokes. The hub is surrounded by an annular chamber composed of the two parts *f* and *f'*. As will be best seen in Fig. 4, the part *f'*, or inner part, of this chamber is of cylindrical form, having an outwardly-projecting flange, and the part *f* is also of cylindrical form, but having an inwardly-projecting flange. The two parts are soldered or brazed together to form the chamber, the outer edge of the part *f* projecting beyond the part *f'* sufficiently to cover rivets through the

flanges D or other projections and to make a close joint between it and the flange or spokes, as the case may be, and the inner edge projecting inwardly sufficiently to form a close joint with the hub.

The tube G is threaded its entire length and passes through the outer and inner cylindrical portions of the annular chamber and through the hub and axle-box, these parts being all threaded uniformly for that purpose. The outer end of the tube is covered by the cap G', that may be removed to fill the chamber with oil through the tube and the holes *g*. The holes *g* should have a total area about equal to that of the tube, and should be placed spirally around the tube in order that it may not be weakened in any one place more than necessary to make one hole. The wick H is placed in the tube and extends from the axle-spindle to a point near the first hole.

The annular oil-chamber fits over the thimble or band E, being forced on until its inner side, *f'*, comes in contact with the radial flange of said band, in which position it is retained by the pins *p*, screwed into the band outside of the chamber, and by the screw-threaded tube G, which, as before stated, connects with a corresponding thread in the band, hub, and axle-box. The annular chamber is thus held firmly in position and all leakage of oil into the body of the hub prevented. The cap being removed, the oil should be poured into the tube until, running through the holes *g*, it fills the chamber to about the height of the bottom of the axle-spindle. The cap being screwed on again, the wheel may revolve and will discharge at each revolution oil into the interior of the tube *g*, a small portion of oil being constantly taken therefrom and carried to the axle by the wick. It is obvious that, the height of the oil being not greater than the bottom of the axle-spindle, it cannot be discharged into the axle-box unless the wheel be revolved, and if by accident it is filled beyond that point it can discharge but slowly against a closely-fitting joint when the tube is at the bottom and not at all when it is at the top.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

A self-oiling attachment for vehicle-wheels,

consisting of an annular oil-chamber surrounding the hub and secured in position against the flange of the hub-band by the pins *p*, and tube G, said tube forming the passage for oil to the
5 axle and being screw-threaded its entire length, connecting the oil-chamber, band, hub, and axle-box firmly together, as and for the purpose set forth.

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

M. W. BROWN.

Witnesses:

CHARLEY ERWIN,
L. P. HARRIS.