

H. P. HANSEN.
 AXLE LUBRICATOR AND DUST EXCLUDER.
 APPLICATION FILED JULY 28, 1908.

929,303.

Patented July 27, 1909.

Fig. 1.

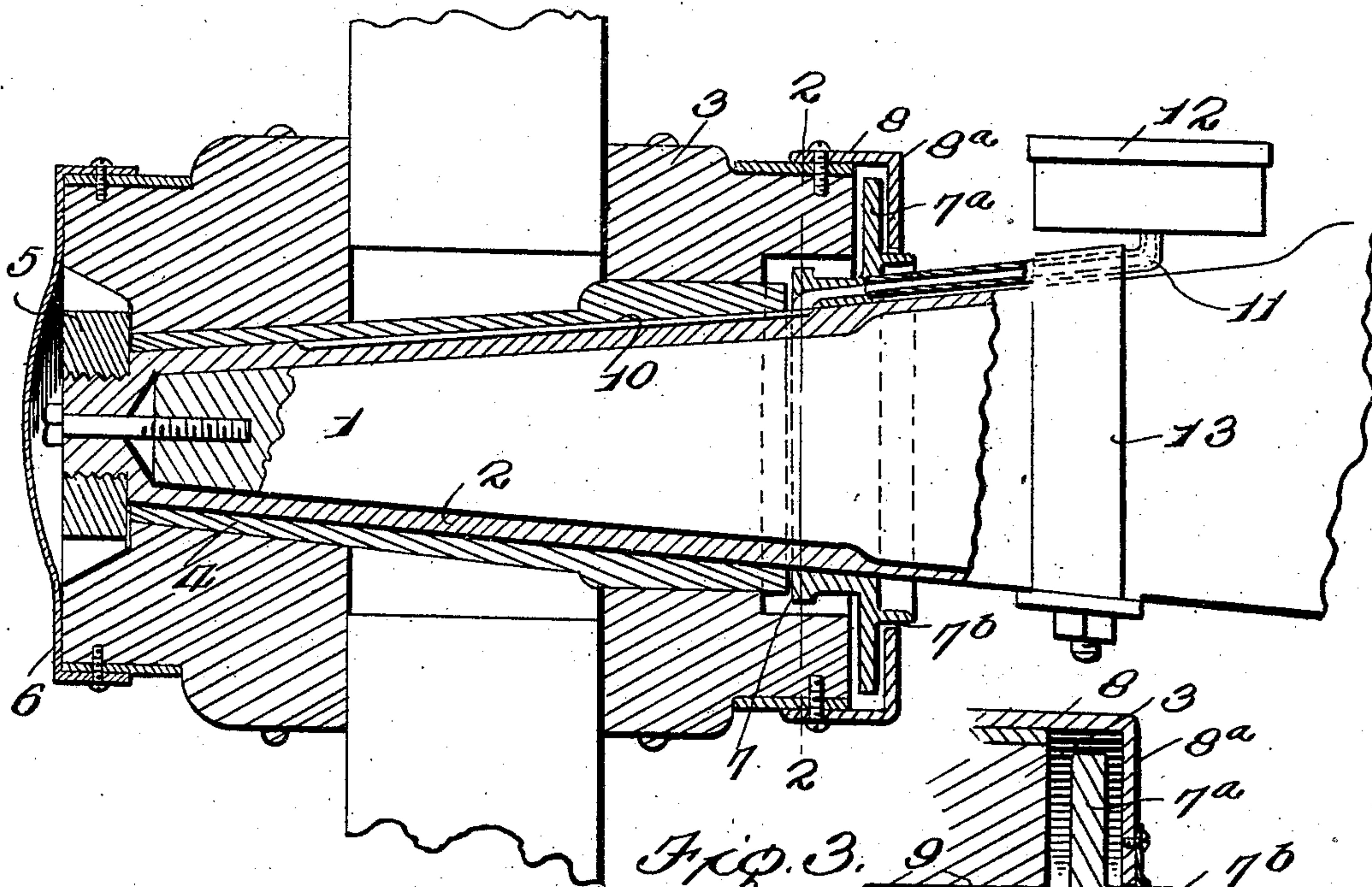


Fig. 2.

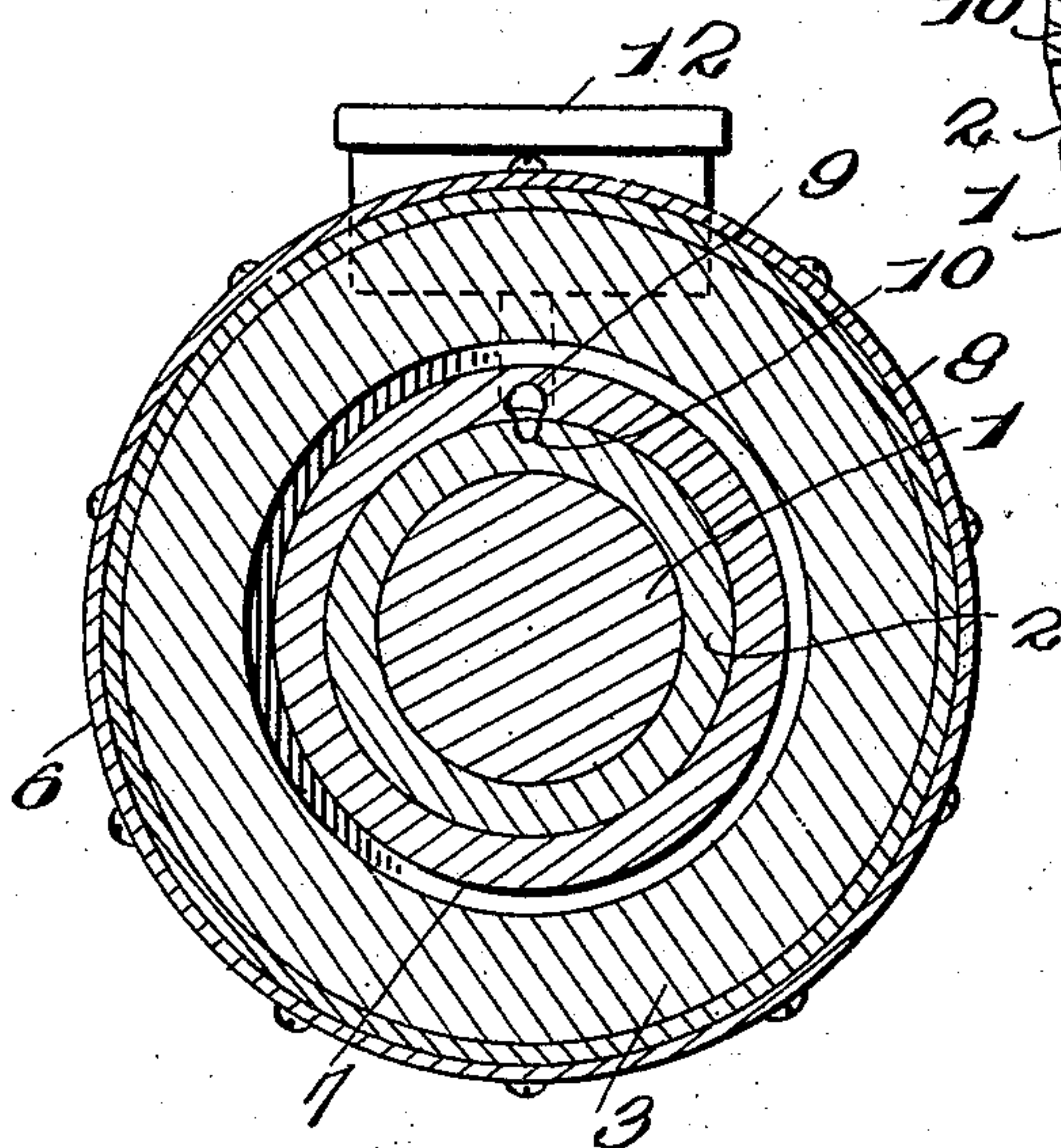
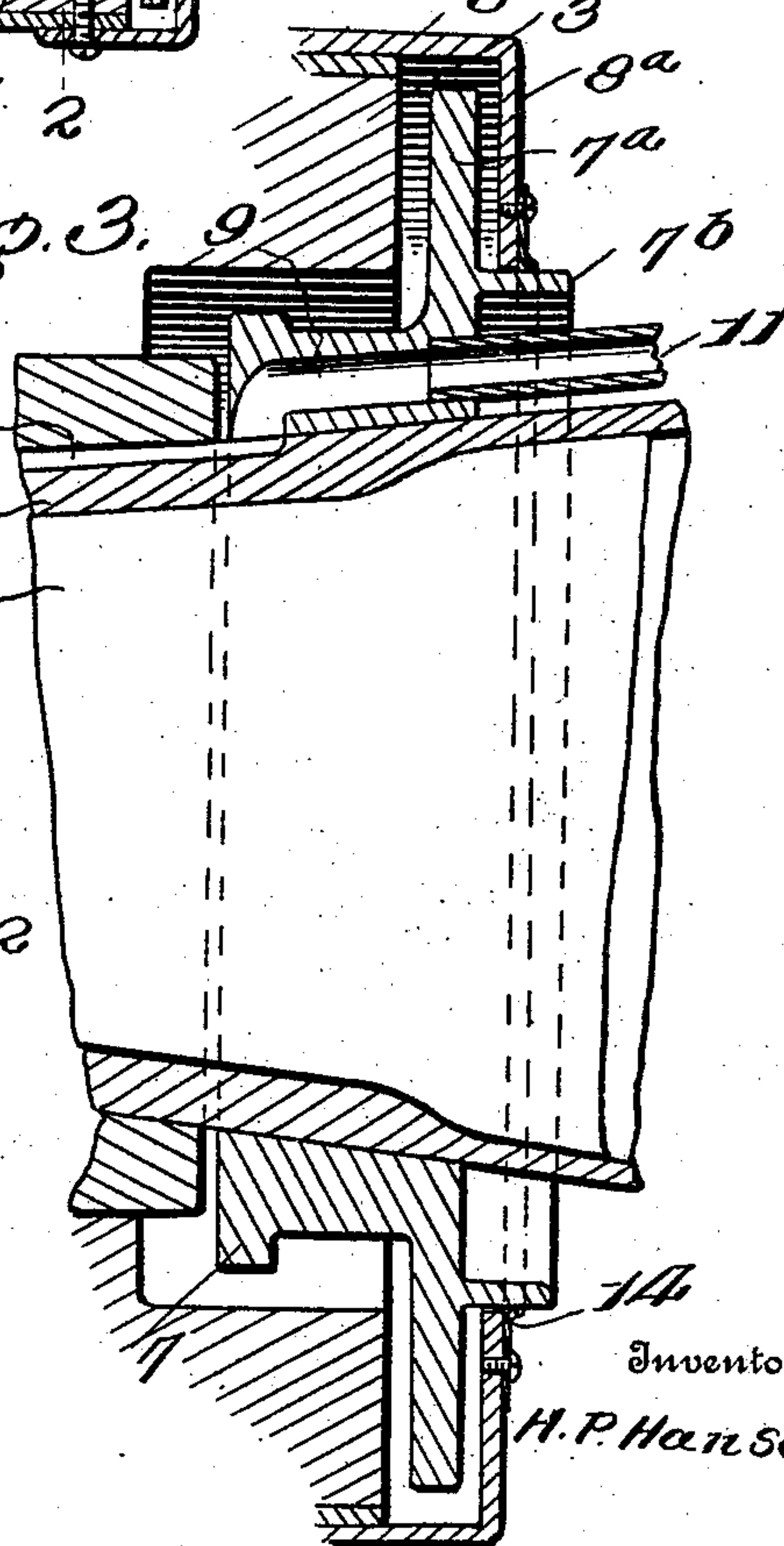


Fig. 3.



Inventor.

H. P. Hansen

Witnesses

W. H. Moore
W. H. Moore

By

Harvey, Attorneys

UNITED STATES PATENT OFFICE.

HARVEY P. HANSEN, OF LIND, WASHINGTON.

AXLE-LUBRICATOR AND DUST-EXCLUDER.

No. 929,303.

Specification of Letters Patent.

Patented July 27, 1909.

Application filed July 28, 1908. Serial No. 445,812.

To all whom it may concern:

Be it known that I, HARVEY P. HANSEN, citizen of the United States, residing at Lind, in the county of Adams and State of Washington, have invented certain new and useful Improvements in Axle-Lubricators and Dust-Excluders, of which the following is a specification.

The present invention relates in general to vehicles, and more particularly to a novel sand band construction for excluding dust and grit from the spindles.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a longitudinal sectional view through an axle spindle and the hub of a wheel mounted thereon, the said members being provided with the improved sand band construction embodying the invention. Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1. Fig. 3 is an enlarged longitudinal sectional view through a portion of the spindle and hub and shows a modification.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the present embodiment of the invention, the numeral 1 designates an axle spindle which may be of any approved construction and is provided with the usual axle skein 2. Mounted upon the spindle is the hub 3 of a wheel, the hub being provided with the usual boxing 4 and being held in position by a nut 5 at the outer end of the spindle. Applied to the outer end of the hub is a cap 6 which fits over the nut 5 and serves to prevent any dust or foreign matter from working its way between the axle skein and the boxing from the outer end of the skein. Applied to the inner end of the spindle is a collar 7 which forms a stop to limit the inward movement of the hub. This collar 7 is formed with an outwardly projecting annular flange 7^a and this flange carries a rearwardly projecting annular lip 7^b.

A ring 8 is applied to the inner end of the hub 3 and this ring is formed with an inwardly extending annular flange 8^a which overlaps the flange 7^a of the collar, a suffi-

cient space being provided between the two flanges to allow for the usual play of the hub upon the spindle. The inner edge of the flange 8^a bears loosely against the lip 7^b and the two flanges 7^a and 8^a in conjunction with the lip 7^b serve to prevent any dust or foreign matter from working its way between the axle skein and the boxing from the inner end of the skein.

The upper portion of the collar 7 is formed with an opening 9 the inner end of which communicates with a longitudinal groove 10 in the skein 2. Threaded in the outer end of this opening 9 is the extremity of a feed tube 11 leading from an oil cup 12, the feed tube being secured to the axle by means of the clamping band 13. With this construction it will be obvious that the oil placed within the oil cup 12 will flow through the feed tube 11 and opening 9 into the groove 10, the groove serving to lead the oil or lubricant to the outer end of the skein. Such a construction has the advantage of enabling the wheel to be lubricated without the necessity of removing it from the spindle.

A slight modification is shown in Fig. 3 in which the flange 8^a of the ring 8 is provided with a ring 14 of some flexible material such as canvas or leather, the said ring bearing loosely against the lip 7^b. This construction may be used to advantage in localities where dust is very thick and troublesome since a substantially dust proof joint is provided between the hub and the spindle.

Having thus described the invention, what is claimed as new is:

1. In a device of the character described, the combination of a spindle, a wheel mounted upon the spindle, a collar applied to the inner end of the spindle and serving as a stop to limit the inward movement of the wheel thereon, the inner end of the collar being formed with an outwardly extending annular flange which is arranged in a plane at substantially right angles to the axis of the spindle and which is provided with an inwardly projecting annular lip, and a ring carried by the wheel and projecting inwardly beyond the hub thereof, the inner end of the ring being formed with an inwardly extending annular flange which overlaps the annular flange of the before mentioned collar and bears loosely against the lip projecting therefrom to exclude foreign matter from the spindle.

2. In a device of the character described,

the combination of a spindle, a wheel mounted upon the spindle, a collar applied to the spindle and formed with an outwardly extending annular flange which is provided with an annular lip, a ring carried by the wheel and formed with an inwardly extending flange overlapping the flange of the collar, and a flexible ring carried by the said flange

and loosely engaging the before mentioned lip. 10

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

HARVEY P. HANSEN. [L. s.]

Witnesses:

CHRISTIAN SCHRENK,
M. C. HAYDEN.