

(No Model.)

C. C. PIERCE.
AXLE LUBRICATOR.

No. 484,234.

Patented Oct. 11, 1892.

Fig. 1.

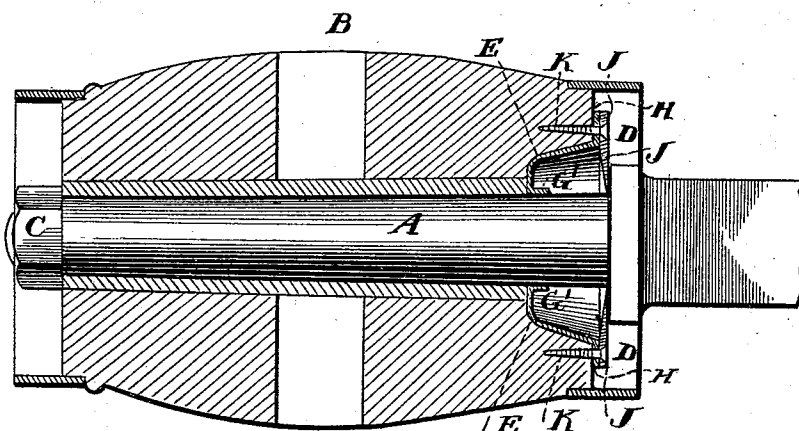
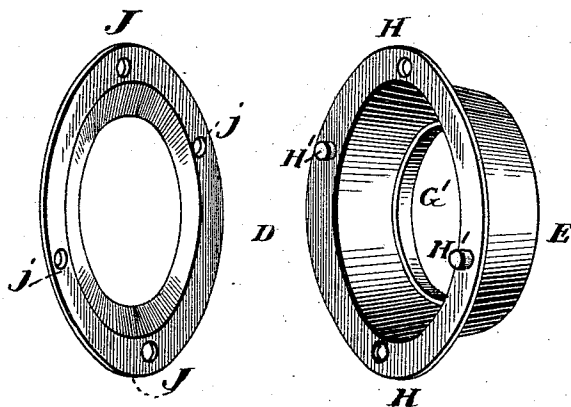


Fig. 2.



Witnesses.

A. Ruppert.

G. M. Copehaver.

Inventor.

Chester C. Pierce,

by Franklin A. Hough

his Attorney

UNITED STATES PATENT OFFICE.

CHESTER C. PIERCE, OF CLAYTON, ASSIGNOR OF ONE-HALF TO GEORGE E. LEWIS, OF CARTHAGE, NEW YORK.

AXLE-LUBRICATOR.

SPECIFICATION forming part of Letters Patent No. 484,234, dated October 11, 1892.

Application filed April 18, 1892; Serial No. 429,651. (No model.)

To all whom it may concern:

Be it known that I, CHESTER C. PIERCE, a citizen of the United States, residing at Clayton, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in a Combined Sand-Band and Oil-Cup for Vehicle-Wheels; and I do 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 the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in attachments for vehicle-hubs; and it has for its object to furnish a device to prevent the sand and dust and other foreign substances from entering the space between the hub and the inclosed axle, and to provide in connection therewith a receptacle for the waste oil, thus preventing the oil from flowing out from the inner end of the hub upon the axle.

To the above ends and to such others as the invention may pertain the same consists in the novel form of the attachment, which will be more particularly hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claims.

The invention is fully illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, in which drawings—

Figure 1 is a longitudinal section of a vehicle-hub to which my improved device has been attached, the axle-arm being shown in full lines; and Fig. 2 is a perspective view, upon an enlarged scale, of the attachment removed from the hub, the two parts of the device being shown as separated but in their relative positions.

Reference now being had to the details of the drawings by letter, A represents an axle-arm, and B the hub of a wheel, which is secured in place upon the axle-arm by a nut C in the usual way. My attachment D, which is fitted within the inner end of the hub, consists of the casting E, the outer face of the

body portion of which is cylindrical and at its inner end is provided with an inwardly-extended flange G', which contacts with the axle, and at its outer end the said casting is provided with an outwardly-projecting flange H, the outer face of which is furnished with two or more lugs or projections H', for a purpose which will be presently explained. The diameter of the interior chamber of the casting E at its inner end is such as to permit the casting to be passed freely over the axle-arm and yet quite closely fit the same, while the diameter of the said chamber at the outer end is much greater, thus providing an interior chamber, which is bell shaped or flaring from the inner to the outer end of the casting, as shown.

J is an annular piece of sheet metal, the diameter of which corresponds with the diameter of the flange H at the end of the casting E, against the outer face of which flange the said part J is fitted, being held in place by the pins or lugs upon the outer face of said flange, which lugs engage openings or recesses J, provided in the face of said ring or collar J.

The device is fitted within a chamber which is provided within the inner end of the hub and is held in place by means of pins or screws K, passed through openings formed in the ring J and flange H of the casting E.

It will be observed that the diameter of the opening in the ring or plate J is the same as the diameter of the axle-arm which it encircles. The said plate or ring J thus serves as a sand-band, effectually preventing sand or other foreign substances from entering the hub of the wheel. The flaring or bell-shaped interior chamber of the casting E affords a space at the outer end of the chamber, within which waste oil from the axle accumulates, and is thus prevented from flowing out upon the axle-arm, where it would disfigure the vehicle and soil clothing or other articles coming in contact with it. The oil which thus accumulates within the chamber may be readily removed when desired by simply removing the wheel from the axle and wiping the oil from the cup.

While in the foregoing description I have

confined myself to the description of the device as constructed of cast metal, I do not wish to restrict myself in this respect, as it is at once evident that the parts may be constructed of sheet metal, if preferred.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. The herein-described combined sand-band and oil-cup attachment for vehicle-wheels, the same comprising the part E, of such diameter as to permit it to be inserted within a chamber formed in the inner end of a vehicle-wheel hub and having flange H and its inner end provided with an inwardly-extending flange G, the annular plate or ring J, having a diameter equal to the diameter of flange H and having a central opening for the passage of the axle, and means, substantially as described, for securing together the parts E and J and for securing both within

the chamber in the hub, substantially as described.

2. The combination, with a vehicle-hub provided with an annular chamber at its inner end, of a bell-shaped casting fitted within the chamber, said casting being provided at its outer end with an outwardly-extended flange H and at its inner end with an inwardly-extending flange adapted to bear upon the axle, and a collar J, having a diameter equal to that of the flange H and having an aperture for the passage of the axle, said collar being secured in place against the outer face of the flange H by the means employed for securing the casting to the hub, substantially as shown.

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

CHESTER C. PIERCE.

Witnesses:

HENRY S. BAXTER,
WM. ELLIOTT.