(No Model.)

T. B. NATION.

LUBRICATING ATTACHMENT.

No. 551,142. Patented Dec. 10, 1895.

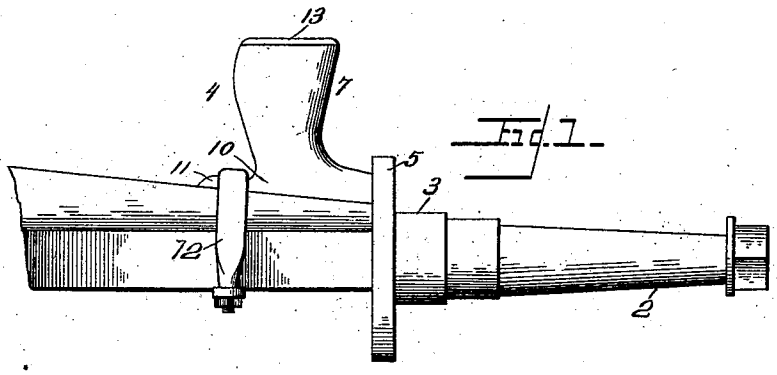

Fig. 1.

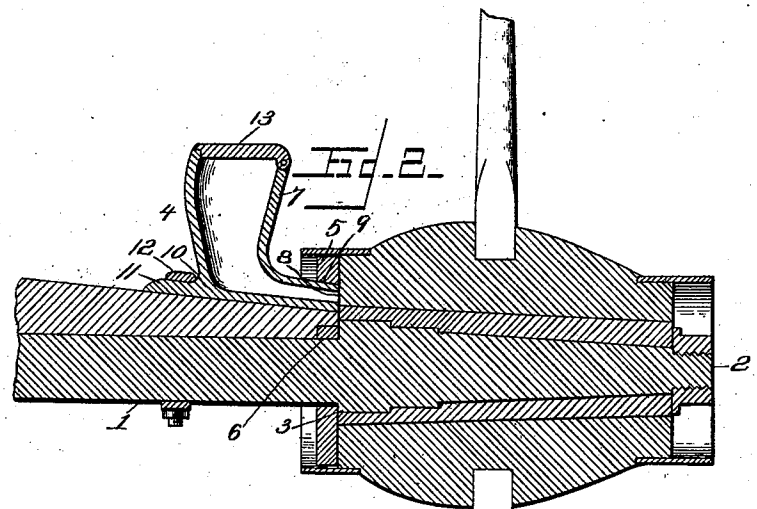

Fig. 2.

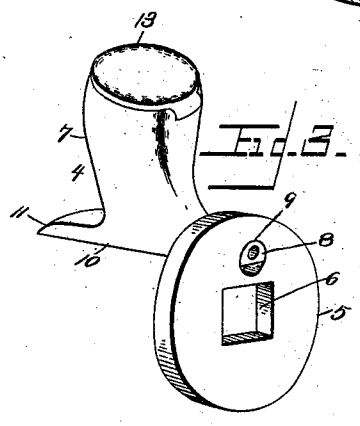

Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

THOMAS B. NATION, OF BLOUNTSVILLE, ALABAMA.

LUBRICATING ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 551,142, dated December 10, 1895.

Application filed October 8, 1894. Serial No. 525,281. (No model.)

To all whom it may concern:

Be it known that I, THOMAS B. NATION, a citizen of the United States, residing at Blountsville, in the county of Blount and State of Alabama, have invented a new and useful Lubricating Attachment, of which the following is a specification.

My invention relates to a lubricating attachment for vehicle-axles, and has for its object to provide a simple, inexpensive, and efficient device for attachment to a vehicle-axle to serve as a sand-guard and lubricating device, and to provide a device of this class which may be applied to any ordinary wheel-axle, particularly a buggy-axle, without alteration of the construction of such axle.

Further objects and advantages of the invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a side view of an attachment embodying my invention applied in the operative position to an axle. Fig. 2 is a central longitudinal section of the same. Fig. is 3 a detail view, in perspective, of the device detached.

Similar numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates an axle of the ordinary or any preferred construction, provided with the spindle 2, having the usual shoulder 3 at its inner end, and 4 represents the attachment forming the subject-matter of my invention, which is applied to the axle adjacent to the said inner end of the spindle.

The attachment embodies a disk 5, forming a dust or sand guard, which is provided with a central angular opening 6, fitted on the angular portion of the axle adjacent to the shoulder at the inner end of the spindle, and an oil-cup 7, which is attached to said disk and is provided with a conductor or feed-tube 8, which extends to the outer surface of the disk in order to discharge the lubricant against the inner end of the hub of a wheel.

The entire device is preferably formed of brass, although it may be made of any other similar material, and the sand-guard, which bears against the shoulder at the inner end of the spindle, fits within the band at the inner end of the hub of the wheel to prevent dust from reaching and accumulating upon the lubricated and rubbing surfaces of the journal.

In the construction illustrated in the drawings the oil-cup and disk are separably made, the disk being provided with an opening 9, in which fits the terminal of the conductor or tube of the oil-cup, said conductor or tube projecting through from the inner to the outer surface of the disk in order to deposit the oil against the inner surface of the hub. In this way the oil is placed so as to find its way at once to the bearing-surfaces, and the minimum quantity of lubricant is sufficient for the purpose. Furthermore, the bore of the conductor or tube is made of small diameter to cause the oil to feed slowly and prevent flooding and waste.

The base 10 of the oil-cup is extended or elongated inwardly to form the extension 11, which is secured to the axle by means of a clip 12, said base being concaved upon its under side to fit the transverse or sectional curvature of the upper or wooden portion of the axle. The top of the cup is provided with a hinged cover 13.

From the above description it will be seen that the device is simple, that it can be applied to an axle of the ordinary construction without alteration, and that it applies the oil effectively to the journal and protects the oiled surfaces, the main feature of advantage being that the application of the attachment requires no previous alteration of the ordinary axle, and hence adapts the device for sale as a separate article of manufacture and for application by an unskilled workman. The manner of applying is as follows: The oil-cup is first arranged in position with its extremity approximately in contact with the inner end of the hub and its outer end secured by the clip 12, after which the vehicle or the axle is turned to arrange the latter in a vertical position with the nut on the extremity of the axle turned downward. Molten metal of the kind selected is then poured into the inner end of the hub, around the axle and the feed-tube of the oil-cup, to form the collar 5, said collar thus serving to secure the inner end of the oil-cup in place. The contraction of the metal upon cooling withdraws it suffi-

ciently from the inner surface of the hub and the projecting band to allow freedom of rotation.

Various changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

Having thus described my invention, I claim—

As a new article of manufacture, a lubricating attachment for vehicle axles, the same comprising an oil cup provided at its inner end with an extension for engagement by a clip encircling the axle, and also provided with a feed tube or conductor adapted to rest upon the upper surface of the axle and terminating at its outer end approximately in contact with the inner abrupt end of the hub within the sand-band, said axle and hub being of the ordinary construction, and a disk or dust guard 5 arranged within said sand-band approximately in contact with the inner end of the hub and around the contiguous portion of the axle with its outer surface flush with the outer extremity of the feed-tube, said feed-tube extending through an opening in the disk and the disk being applied in a molten state after the application of a hub to the axle, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOMAS B. NATION.

Witnesses:
JAMES W. HOOD,
R. T. ROBINETT.