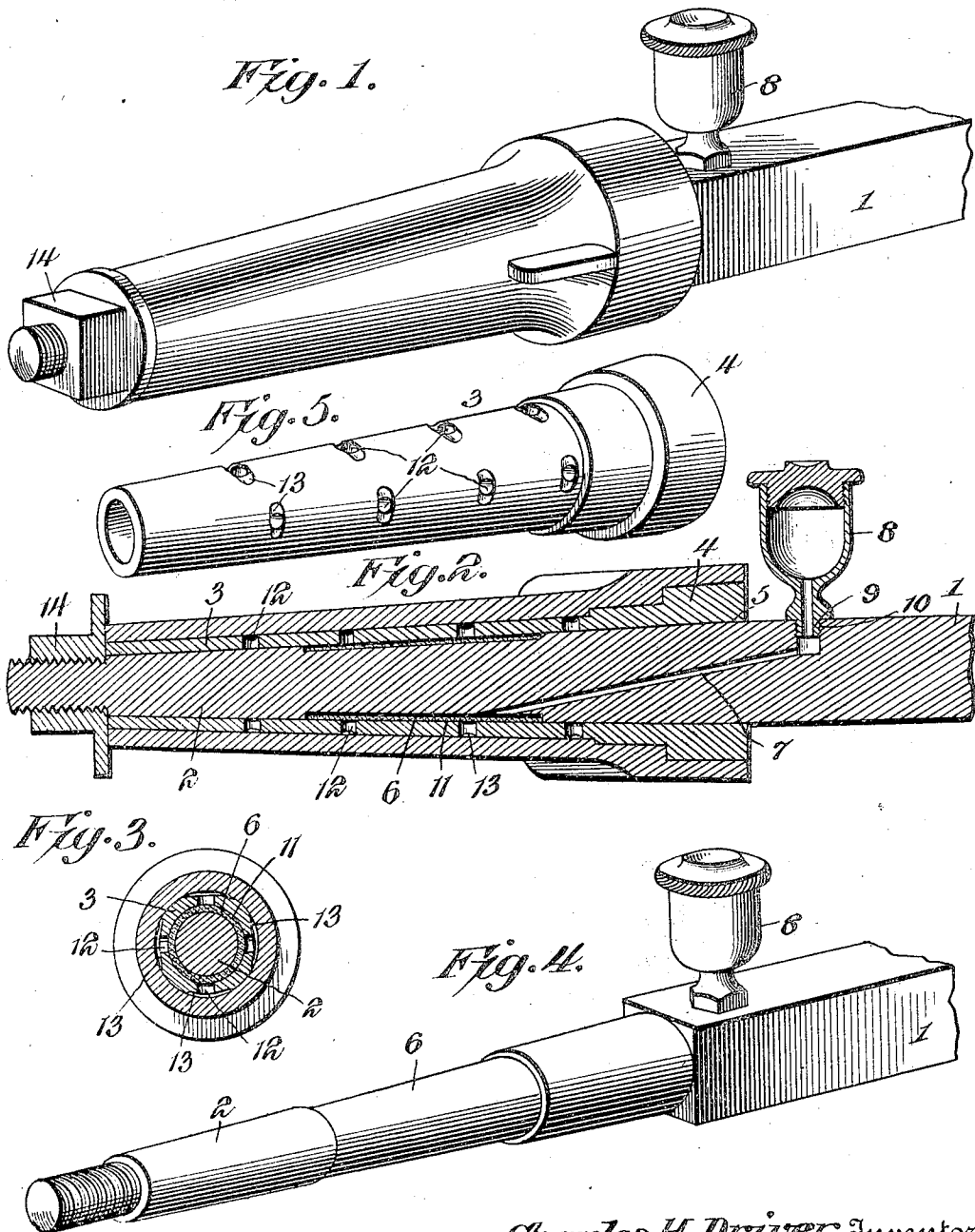


No. 812,552.

PATENTED FEB. 13, 1906.

C. H. DRIVER.
AXLE LUBRICATOR.

APPLICATION FILED NOV. 28, 1904.



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UNITED STATES PATENT OFFICE.

CHARLES H. DRIVER, OF TARPON SPRINGS, FLORIDA, ASSIGNOR OF ONE-HALF TO WILLIAM W. K. DECKER, JOHN K. CHANEY, AND HAYES BIGELOW, OF TARPON SPRINGS, FLORIDA.

AXLE-LUBRICATOR.

No. 812,552.

Specification of Letters Patent.

Patented Feb. 13, 1906.

Application filed November 28, 1904. Serial No. 234,595.

To all whom it may concern:

Be it known that I, CHARLES H. DRIVER, a citizen of the United States, residing at Tarpon Springs, in the county of Hillsboro and State of Florida, have invented a new and useful Axle-Lubricator, of which the following is a specification.

The invention relates to improvements in axle-lubricators.

The object of the present invention is to improve the construction of axle-lubricators and to provide a simple and comparatively inexpensive construction adapted to enable the wheels of a vehicle to be readily lubricated without removing them from the axles.

A further object of the invention is to provide a device of this character capable of feeding a quantity of lubricant from the exterior of the bearing of the axle to the interior thereof and of preventing the same from wasting by too free a flow.

With these and other objects in view the invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view of one end of an axle provided with a lubricator constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view. Fig. 4 is a detail perspective view of the spindle, the axle-skein being removed. Fig. 5 is a detail perspective view of the axle-skein.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates an axle having a polygonal body portion and provided with a round spindle 2, on which is arranged a removable axle-skein 3, having an integral collar 4 at its inner end. The collar 4 is removable from the spindle, and it is provided at its rear end with a polygonal opening 5, receiving the adjacent end of the body portion of the axle and conforming to the configuration of the same,

whereby the skein is interlocked with the axle, and held against rotation on the spindle. The spindle is provided with an intermediate reduced portion 6, and it has an inclined bore or passage 7 communicating at its lower end with the intermediate reduced portion and at its upper end with a lubricant-receptacle 8, whereby oil or other lubricant is fed to the bearing portion of the axle. The oil-cup, which may be either a pressure-feed or any other form of lubricant-receptacle, is provided with a threaded stem 9, which is seated in an interiorly-threaded socket 10 of the body portion of the axle. The socket 10 is located a short distance from the inner end of the spindle, and it will be apparent that only a comparatively short passage or bore is necessary for conveying the lubricant from the oil-cup to the reduced intermediate portion of the spindle. The reduced intermediate portion of the spindle, which forms an annular recess or chamber, receives a sleeve or covering 11, of felt or other absorbent material, which is adapted to prevent the oil or other lubricant from squirting or discharging with force from the inclined lubricant-passage, especially when a pressure-feed oil-cup is employed.

The axle-skein is provided at intervals with perforations 12, adapted to feed the lubricant from the interior of the skein to the axle-box. The skein is preferably grooved at opposite sides of the openings 13 to facilitate the flow or discharge of the lubricant when the wheel is rotating in either direction. Any number of perforations may be employed, and they may be arranged at any points throughout the length of the axle-skein.

The outer end of the spindle is threaded and is adapted to receive an axle-nut 14.

It will be seen that the lubricator is exceedingly simple and inexpensive in construction, that it is adapted to be applied to various kinds of vehicles, and that it is capable of enabling the same to be quickly and effectively lubricated without removing the wheels from the axles.

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

1. In a device of the class described, the combination of an axle having a spindle and provided with a short lubricant-passage ex-

tending from the body of the axle at a point beyond the spindle through the inner portion of the latter and terminating at the bottom thereof and at a point between the ends of the same, a stationary axle-skein rigidly secured on the spindle, one of the said parts being provided with an annular recess forming an interior chamber and communicating with the said lubricant-passageway to receive the lubricant, and a sleeve of absorbent material arranged within the said chamber for controlling the flow of lubricant.

2. In a device of the class described, the combination with a rotary axle-box, of an axle provided with a spindle having an annular groove at an intermediate point to form a lubricant-chamber, said axle being also provided with a lubricant-passageway extending from the said chamber through the inner portion of the spindle to a point beyond the latter, and a stationary axle-skein fitting within and having an exterior bearing-surface to receive the rotary axle-box, said axle-skein being rigidly secured on the spindle and provided at intervals with openings communicating with the said chamber.

3. In a device of the class described, the combination with a rotary axle-box, of an axle provided with a spindle having an annular groove at an intermediate point to form a lubricant-chamber, said axle being also provided with a lubricant-passageway extending from the said chamber through the inner portion of the spindle to a point beyond the latter, a stationary axle-skein fitting within and having an exterior bearing-surface to receive the rotary axle-box, said axle-skein being rigidly secured on the spindle and provided at intervals with openings communicating with the said chamber, and a lubricant-receptacle mounted on the body of the axle and communicating with the lubricant-passageway.

4. In a device of the class described, the combination of an axle having a spindle and

provided with a lubricant-passageway extending through the inner portion of the spindle to a point beyond the same and terminating at the top of the axle, a stationary axle-skein fitted on the spindle and having its inner end detachably interlocked with the body portion of the axle, said skein being provided at intervals with openings, and one of the said parts having an annular groove forming an interior annular chamber communicating with the said lubricant-passageway, and an axle-nut mounted on the spindle and engaging the outer end of the skein to retain the latter in its interlocked relation with the axle.

5. In a device of the class described, the combination of an axle having a spindle provided with an annular groove located at an intermediate point on the spindle and forming a lubricant-chamber, said axle being also provided with a lubricant-passageway extending through the inner portion of the spindle to a point beyond the same and communicating with the said chamber, a stationary axle-skein detachably interlocked with the body portion of the axle and provided with openings, a sleeve of absorbent material arranged within the said chamber, and an axle-nut engaging the skein and retaining the same in its interlocked relation with the axle.

6. In a device of the class described, the combination of an axle having a lubricant-passageway extending from the spindle to a point beyond the same, and a stationary axle-skein arranged on the spindle and provided with openings for the discharge of the lubricant, said skein being provided at opposite sides of the openings with short grooves disposed transversely of the skein.

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

CHARLES H. DRIVER.

Witnesses:

JOHN H. SIGGERS,
S. GEORGE TATE.