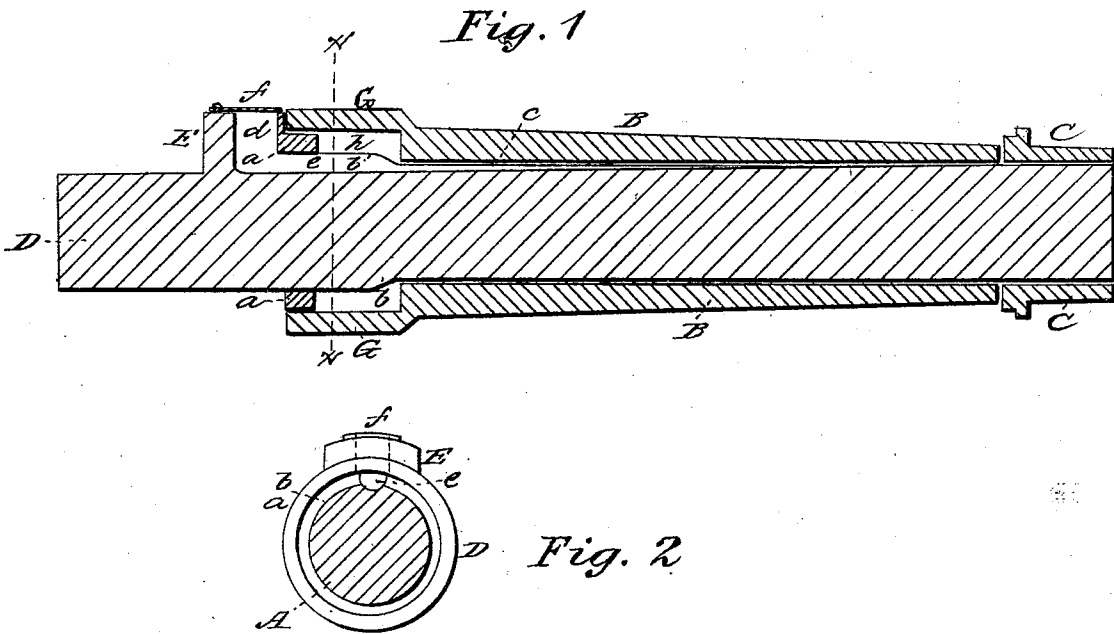


M. F. KELLOGG.  
Axle Lubricator.

No. 101,885.

Patented April 12, 1870.



Witnesses:  
John M. Staffis  
C. L. Evert

Inventor:  
M. F. Kellogg.  
per Alexander Mason  
Atty.

# United States Patent Office.

MILO F. KELLOGG, OF PITTSFIELD, OHIO.

Letters Patent No. 101,885, dated April 12, 1870.

## IMPROVEMENT IN LUBRICATING AXLES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, MILO F. KELLOGG, of Pittsfield, in the county of Lorain and in the State of Ohio, have invented certain new and useful Improvements in Lubricating Axles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in so constructing an axle for vehicles that it can be oiled or lubricated back of the hub without removing the hub.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a longitudinal vertical section, and

Figure 2 is a cross-section, taken through  $x x$ , fig. 1.

A represents the spindle, projecting from the end of the axle D, said spindle having offsets  $a$  and  $b$  at its inner end.

On the upper side of the axle D, at its outer end, that is, back of the inner end of the spindle A, is a projection, E, having an oil-chamber,  $d$ , within the same, which is covered by a lid,  $f$ . A passage or

groove,  $e$ , leads from said oil-chamber  $d$  through the offsets  $a$  and  $b$ , following the spindle A on the top any desired distance.

The skein B, which is held on the spindle by the nut C, is at its inner end provided with an enlargement, G, which incloses the offset  $a$ , and forms a chamber,  $h$ , between the offset  $b$  and said enlargement, as shown in fig. 1.

In the orifice or chamber  $d$  a brass cup may be screwed, so as to permit the oil to flow onto the spindle as it is required.

It will be seen that by this arrangement it is not necessary to remove the wheel to lubricate the axle.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the spindle A with the projection E, chamber  $d$ , passage  $e$ , and offsets  $a b$ , with the thimble B, with an enlargement, G, all substantially as set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 18th day of January, 1870.

M. F. KELLOGG.

Witnesses:

IRA GILLMORE,  
I. H. BROWN.