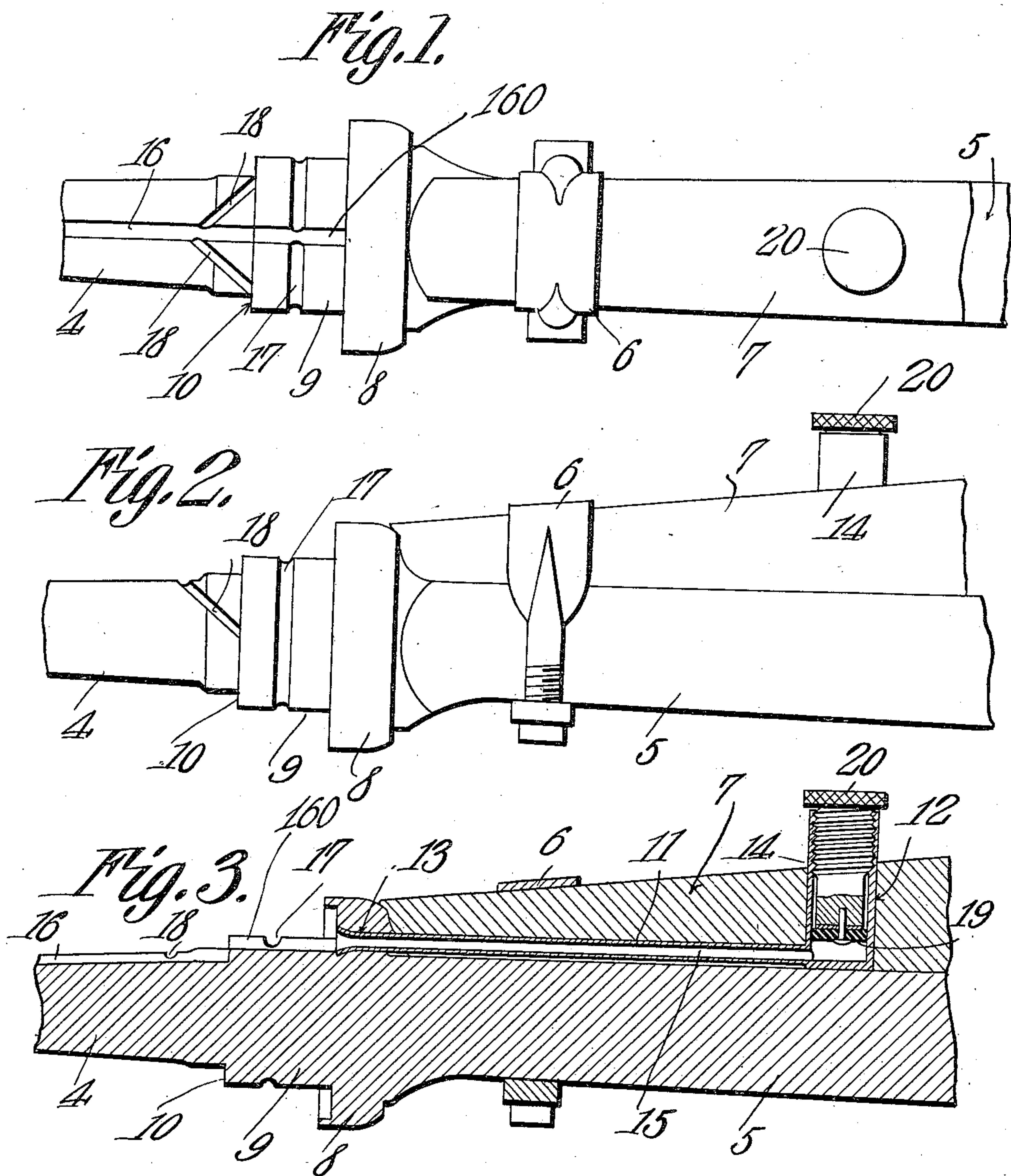


J. W. JONES.
LUBRICATOR FOR AXLES.
APPLICATION FILED JAN. 4, 1909.

990,361.

Patented Apr. 25, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN W. JONES, OF CHANUTE, KANSAS.

LUBRICATOR FOR AXLES.

990,361.

Specification of Letters Patent. Patented Apr. 25, 1911.

Application filed January 4, 1909. Serial No. 470,693.

To all whom it may concern:

Be it known that I, JOHN W. JONES, a citizen of the United States, residing at Chanute, in the county of Neosho and State of Kansas, have invented a new and useful Lubricator for Axles, of which the following is a specification.

This invention relates to axle-lubricators and has for its object to provide a device of this kind embodying simplicity of construction, and also one which can be readily applied to any ordinary vehicle-axle, and which is highly efficient in operation, the lubrication of all parts of the axle-spindle being assured.

With these objects in view the invention consists in a novel combination and arrangement of parts to be hereinafter described and claimed, reference being had to the drawing hereto annexed, in which:—

Figure 1 is a plan view showing the application of the invention, only so much of the axle being shown as will suffice to show the connection of the invention therewith. Fig. 2 is a side elevation. Fig. 3 is a longitudinal sectional view.

In the drawing, 5 denotes an ordinary metal axle on top of which is secured by clips 6 the usual wooden bar or axle-tree 7. The abutting-ring of the axle is indicated by the reference number 8, adjacent thereto the spindle is enlarged and cylindrical as indicated at 9, whereby a shoulder 10 is formed, and beyond said shoulder stands the tapering spindle proper 4.

The under side of the tree 7, for a short distance back of the abutting ring, has a channel 11 which communicates at its inner end with a vertical socket 12 opening through the top of the bar and at its outer end the channel communicates with an opening 13 through the abutting ring. In the socket 12 is seated a lubricant container or reservoir 14 to the bottom of which is connected a distributing tube 15 which seats in the channel 11 and extends through the opening 13 so as to open into the outer face of the abutting ring, the mouth of the tube being flared and the opening 13 being shaped accordingly to make a close fit and prevent the lubricant from leaking back through said opening.

The axle-spindle has a longitudinal groove 16 which extends along its top to the shoulder 10, and the cylindrical part 9 has a similar groove 160 in line with but at a

higher level than the groove 16 which extends along its top up to the abutting ring 8 and to the discharge end of the tube 15. The enlarged portion 9 of the spindle also has a circumferential groove 17 which is intersected by and communicates with the groove 160. From the groove 16, a short distance in front of the shoulder 10, grooves 18 extend obliquely inward to said shoulder. By this arrangement of grooves the lubricant will flow to all parts of the spindle, including the shoulder 10.

For forcing the lubricant out of the container 14, a plunger 19 is employed which works in the container. The plunger is carried by a screw plug 20 closing the container, which plug, when it is screwed down, carries the plunger downwardly in the container, and thus forces the lubricant from the same and through the tube 15 to the grooves of the spindle. The lubricant issues out the enlarged end of the tube 15 and flows over the outer wall of the abutting ring 8 around which it is carried by the inner extremity of the hub, some of it flows along the groove 160 from which it also passes down both sides in the circumferential groove 17 and the interior of the inner end of the hub carries the lubricant around said part 9, the balance of the lubricant passes out the outer end of the groove 160 and flows into the groove 16 through which it flows because said groove is in the tapered part of the spindle, and finally (whichever way the wheel is rotated) some of the lubricant within the groove 16 is carried by the wheel along one of the grooves 18 inward against the face of the shoulder 10. All parts of this spindle will be worn most on the under side, and the next greatest point of wear will be from said under side up the rear side, and hence the grooves along the tops of the parts of the spindle will not present corners which will wear within the hub box.

By the arrangement of parts herein described a lubricator is had which is easily operated and which effectually serves the purpose for which it is designed, and by reason of the simplicity of its construction it can be readily applied to any ordinary axle.

What is claimed is:—

In an axle lubricator, the combination with the metal axle having an abutting ring pierced with an opening flared at its outer end, next outside the ring a cylindrical part

having a longitudinal groove in its top
alined with said opening and a cylindrical
groove intersecting the longitudinal groove,
next outside this part a flat shoulder, and
5 next outside said shoulder a tapering part
having a longitudinal groove alined with
but at a lower level than the groove in the
cylindrical part and two oblique grooves
leading from said longitudinal groove in
10 opposite directions to the face of said shoul-
der; of the wooden axle-tree secured upon
the metal axle and channeled in its lower
side and having an upright socket at the in-

ner end of the channel, a distributing tube
lying in the channel and extending through 15
said opening in the abutting ring and hav-
ing its outer end flared, and a lubricant res-
ervoir within said socket communicating
with said tube.

In testimony that I claim the foregoing as 20
my own, I have hereto affixed my signature
in the presence of two witnesses.

JNO. W. JONES.

Witnesses:

E. P. BURRIS,

B. E. DANIELLEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
