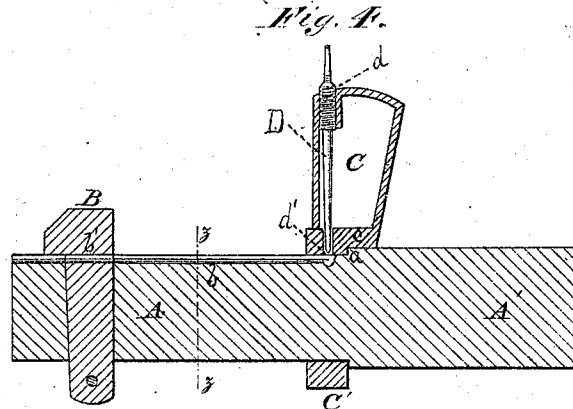
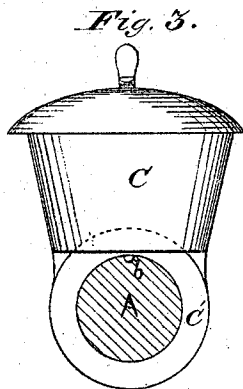
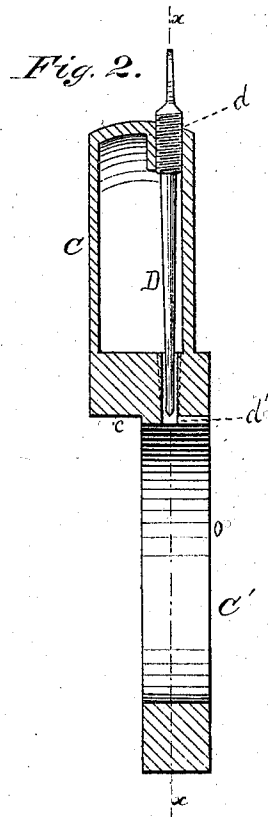
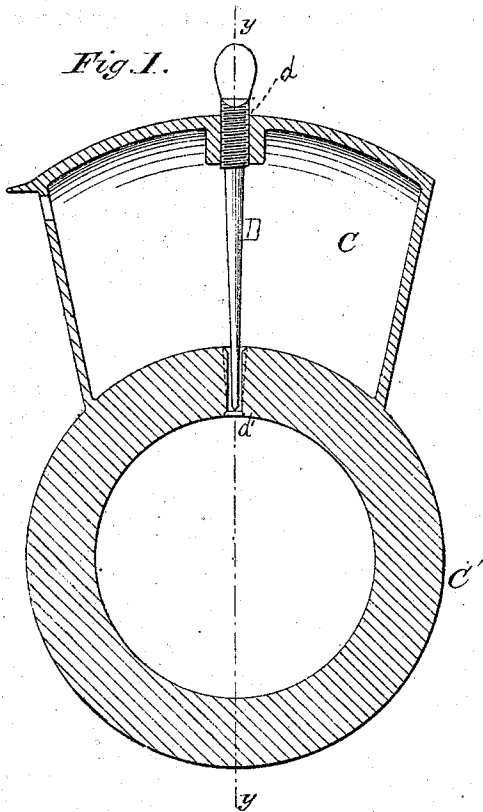


ROBERT V. LANEY.

Improvement in the Mode of Lubricating Axles or Journals.

No. 124,595.

Patented March 12, 1872.



Witnesses:

T. C. Brecht.
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Inventor:

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UNITED STATES PATENT OFFICE.

ROBERT V. LANEY, OF CUMBERLAND, MARYLAND.

IMPROVEMENT IN THE MODES OF LUBRICATING AXLES OR JOURNALS.

Specification forming part of Letters Patent No. 124,595, dated March 12, 1872.

To all whom it may concern:

Be it known that I, ROBERT V. LANEY, of Cumberland, in the county of Alleghany and State of Maryland, have invented an Improved Axle or Journal with Lubricating Collar, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing and the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is a longitudinal sectional view of the lubricating reservoir and collar. Fig. 2 is a vertical sectional view on the line *y y*, Fig. 1. Fig. 3 is a side view of the lubricating-reservoir and collar when placed on the axle. Fig. 4 is a longitudinal sectional view of the lubricating-reservoir, collar, and axle.

The object of my invention is to furnish, as a new article of manufacture, a lubricator so constructed as to be readily attached and secured to the axle of all species of land conveyance, such as wagons, carriages, railroad cars, &c., and also the driving-axle of harvesting-machines, grain-drills, &c., as well as to all kinds of machine-shafting on which pulleys or wheels are used.

The nature of my invention consists in casting or otherwise forming the lubricating-reservoir with a flanged collar, so constructed that while the collar encircles the spindle of the axle or shaft its flanged face shall rest on the shoulder thereof, thus affording a convenient and reliable attachment without employing any independent device or appliance to secure the lubricator in position. My invention also consists in so forming the filling-orifice and the discharge-passage that they can be closed by a single valve-rod. The rod is tapering in form, which affords a convenient and accurate means of regulating the flow or discharge of the lubricating oil or substance. My invention also consists in cutting on the spindle of the axle-tree a longitudinal groove, and through the head of the linch-pin an opening, so formed that they shall be on a direct line with the mouth of the discharge-passage, which arrangement permits of a wire or other suitable probe being introduced to relieve the discharge-passage when it becomes choked, and this too without removing the wheel.

The great advantages of this invention are found in its simplicity, cheapness, and in the

readiness with which it can be applied to either a new or old axle or shaft, and also in the great degree of durability which it possesses, and which is due to the absence in its construction and arrangement of all complicated mechanism.

The construction and operation of my invention are as follows: A represents the spindle of an ordinary axle, A', or a section of a shaft, to which a wheel or pulley is to be attached, the latter being secured thereon, so as to revolve freely, by means of a linch-pin, B, in the usual manner. C is the reservoir of the lubricator, and is cast or otherwise formed with an annular ring-collar, C', the same being so connected as to leave a flat right-angular flange, *c*, at the base of the reservoir C, as clearly shown in Fig. 2, and which rests on the shoulder *a* of the axle or shaft, as shown in Fig. 4, and which serves to maintain the reservoir in a correct position during the revolution of the wheel or pulley. D is a tapering valve-rod, which is inserted through the filling-orifice *d*, and which has its seat therein, each being provided with a screw-thread, whereby a secure fastening of the rod in the orifice is readily effected. Directly on a line with the filling-orifice *d* is the discharge-passage *d'*, and through which the oil or other lubricating substance is fed to the axle, spindle, or shaft A. This discharge-passage *d'* is so formed as to permit of its being partially or entirely closed simply by forcing down therein the tapering end of the rod D. Consequently the tapering rod D is an adjustable valve, and permits the amount of lubricating oil to be fed to the axle to be regulated at pleasure. On the spindle A are cut distributing-tubes, one of which, *b*, is straight, running on a direct longitudinal line from the outer end of the spindle to the shoulder *a*, and thus terminating immediately under the lower opening or mouth of the discharge-passage *d'*, as clearly shown in Fig. 4. Through the head of the linch-pin B is cut an opening, *b'*, which communicates with the longitudinal groove *b*, and by means of which a rod can be passed to free the discharge-passage at its mouth from any obstruction that may gather there, and that too without withdrawing the linch-pin or removing the wheel or pulley.

Having thus given a detailed description of

the construction of the lubricator, its method of being applied as well as its operation in connection with the axle or shaft will readily be understood. It is placed in position, as shown in Fig. 4, its flanged face resting on the square shoulder *a* of the axle or shaft. The wheel or pulley is then placed on the spindle, the inner face of its nave or hub bearing against or being in immediate contact with the face *o* of the collar *C'*. The screw valve-rod *D* is then turned so as to open to the desired degree the discharge-passage *d'*, and the entire device is in an operating condition.

Should dirt or other impurities gather and accumulate between the spindle and collar so as to obstruct or choke the passage *d'*, and thereby prevent the proper discharge of the lubricating fluid, simply by inserting a rod through the opening *b'* of the linch-pin, and passing it along the longitudinal groove *b*, the obstruction is readily removed, and thus the device is always kept in accurate and reliable working order.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. As a new article of manufacture, a lubricator, consisting of the reservoir *C* and collar *C'*, so connected as to leave a flanged face, *c*, filling-orifice *d*, discharge-passage *d'*, and independent screw-valve tapering rod *D*, when the same are all combined so as to operate in connection with an axle or shaft, substantially as described.

2. The longitudinal groove *b* cut on the spindle *A*, and opening *b'* in the linch-pin *B*, the same being so relatively arranged, in connection with the discharge-passage *d'* of the reservoir *C* as to permit the insertion of a rod or equivalent device to remove obstructions, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses: ROBERT V. LANEY.
 JOSEPH GONDER,
 M. T. BRUCE.