J. WOODVILLE.

Car-Wheel Lubricator.

No. 167,048. Patented Aug. 24, 1875.

Fig. 1

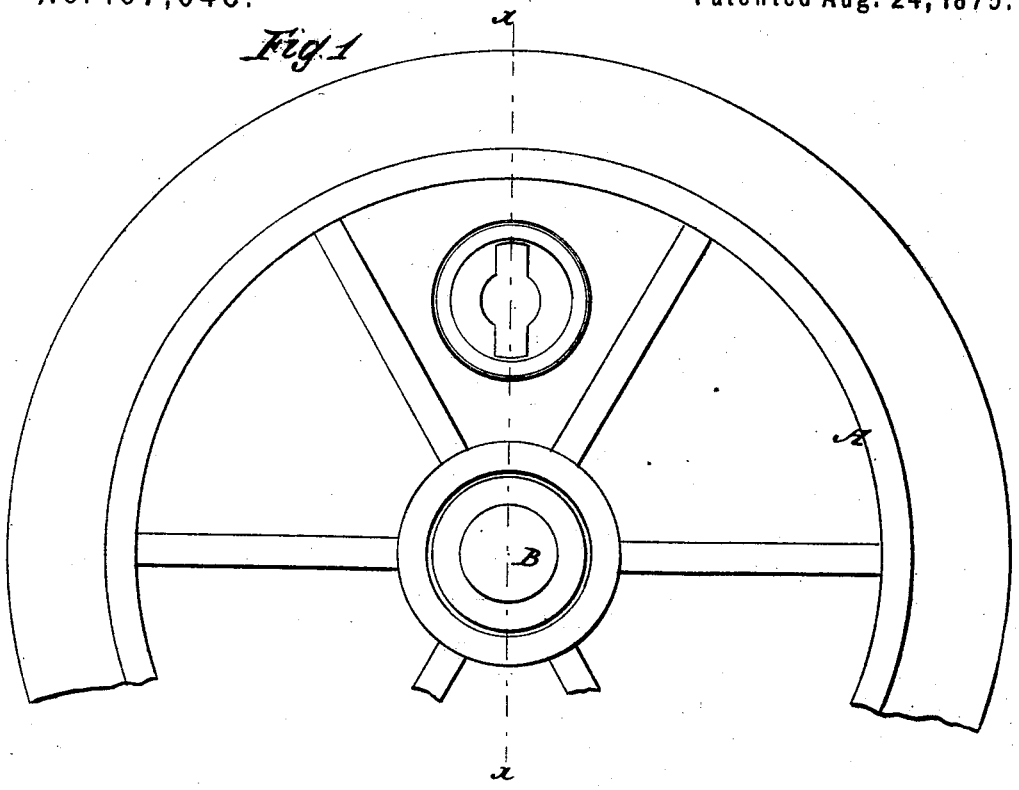
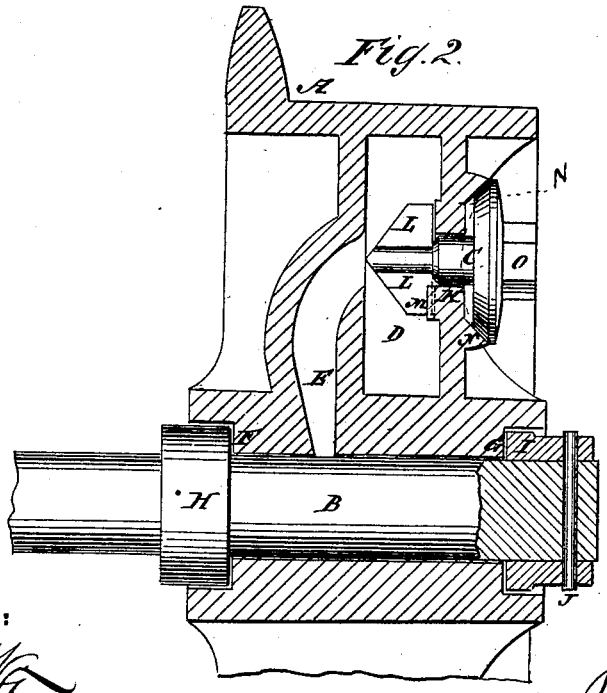


Fig. 2



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN WOODVILLE, OF WASHINGTON, INDIANA.

IMPROVEMENT IN CAR-WHEEL LUBRICATORS.

Specification forming part of Letters Patent No. **167,048**, dated August 24, 1875; application filed April 24, 1875.

To all whom it may concern:

Be it known that I, JOHN WOODVILLE, of Washington, in the county of Daviess and State of Indiana, have invented a new and useful Improvement in Lubricating Car-Wheels, of which the following is a specification:

The invention will first be described in connection with the drawing and then pointed out in the claims.

Figure 1 is a side view of a portion of a car-wheel, showing the plug-valve of the reservoir. Fig. 2 is a section of Fig. 1, taken on the line *x x*.

Similar letters of reference indicate corresponding parts.

A is the wheel, and B is the axle. C is the plug-valve, and D the oil reservoir or chamber. E is the channel or aperture by which the reservoir communicates with the axle. F and G are shoulders in the hub. H is a fast collar on the axle, and I is a loose collar on the end of the axle, which is fastened by the spring-key J. These collars run in contact with the shoulders E and G so closely as to prevent the escape of the oil or lubricating material. The reservoir is cast between two of the arms of the wheel by setting a core in the mold, having a stem on the side of the core for forming the aperture E, which conveys the oil or lubricating matter to the axle, substantially as seen in Fig. 2. K is an opening from the outside into the chamber, which is closed by the plug-valve C. The form of this opening is seen in Fig. 1, (something like a key-hole.) The stem of the plug has upon its sides two wings, L L, which are passed to the inside of the chamber, and then the plug is turned and the wings are carried on two spiral inclines, *m*, to draw the valve C tightly to its seat. N is the seat of the valve, and O is the outside lug, to which a wrench may be applied for turning the valve. The chamber extends in each direction from the opening K, so that the oil may be introduced when the wheel is in any position. These wheels are subjected to great wear as well as strain, and it has been found extremely difficult to keep them properly lubricated. By the present invention all trouble is avoided.

I am aware that it is not new to make oil-cavities in wheel open at lower end to allow access of oil directly to wheel's axle when said wheel stands in the right position; also, that is not new to use a tube or opening from axle to top of reservoir, to dip the oil and convey it to axle as the wheel revolves. I construct a branch passage, E, from about the center of oil-reservoir, (which is never filled above said passage's opening.) As the wheel revolves oil will slide down the back wall and turn into the passage, but if more falls than is required the superfluity falls back, the collar and washer in hub preventing its escape.

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

1. A car-wheel, having between the arms an oil-chamber, D, provided with inlet K and outlet E, at the middle thereof, as shown and described.

2. The combination, with plug C and chamber D, having oblong hole K, of a stopper, C, having wings L L, working over a spiral incline, M, as and for the purpose specified.

JOHN WOODVILLE.

Witnesses:

WM. RAY GARDINER,

WM. ARMSTRONG.