

E. McHUGH.
CAR-AXLE LUBRICATOR.

No. 193,533.

Patented July 24, 1877.

Fig. 1.

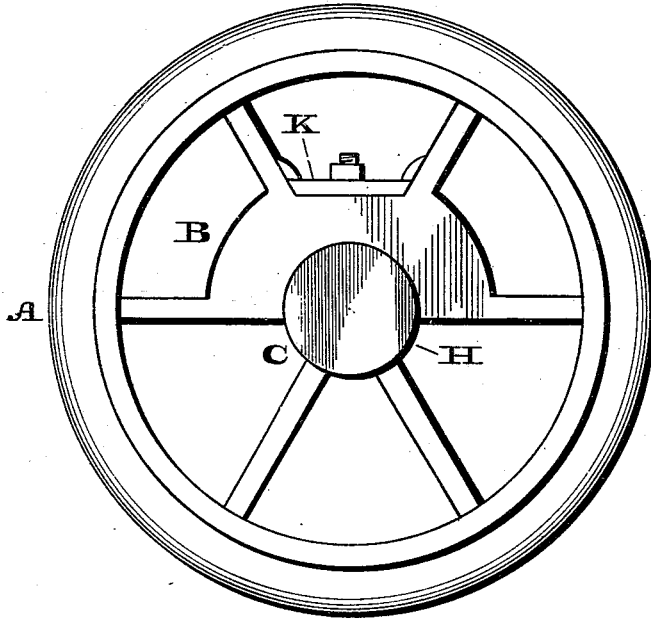


Fig. 2.

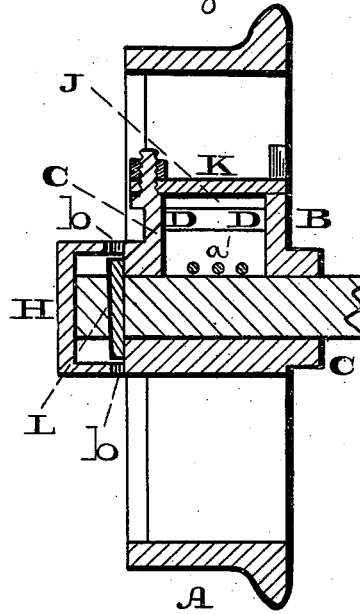
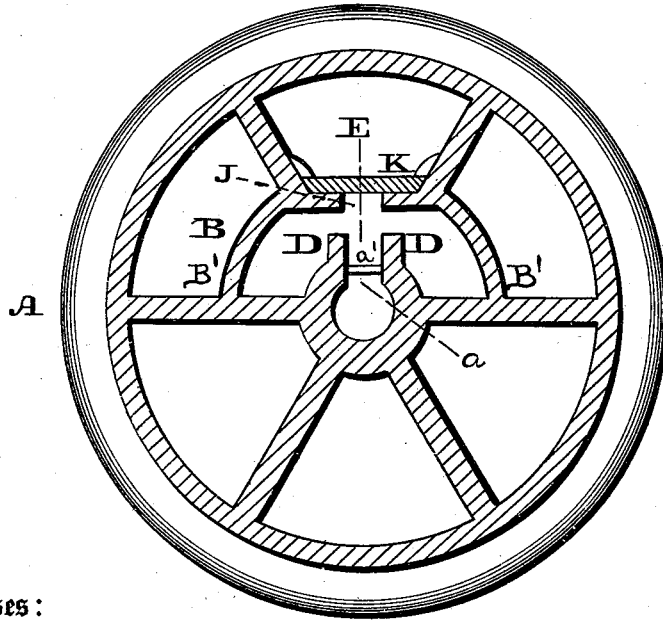


Fig. 3.



Witnesses:

Lewis F. Brown?
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UNITED STATES PATENT OFFICE.

EDWARD MCHUGH, OF HUNTINGDON, PENNSYLVANIA.

IMPROVEMENT IN CAR-AXLE LUBRICATORS.

Specification forming part of Letters Patent No. **193,533**, dated July 24, 1877; application filed March 6, 1877.

To all whom it may concern:

Be it known that I, EDWARD MCHUGH, of Huntingdon, in the county of Huntingdon and State of Pennsylvania, have invented a new and useful Improvement in Lubricating Wheels and Axles, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a side elevation of a wheel embodying my invention. Fig. 2 is a section in line *x x*, Fig. 1. Fig. 3 is a section in line *y y*, Fig. 2.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a wheel having a lubricating chamber, having overhanging walls and closing-cap, and which is located adjacent to the hub thereof, and communicates with its central opening, whereby the axle or journal will be readily and continuously supplied with the lubricant.

Referring to the drawings, A represents a car-wheel, with which is formed a chamber, B, occupying a position adjacent to, and surrounding a portion of, the hub C of the wheel, which hub is cut away, as at *a*, to form communication between the chamber B and the central opening of the wheel, and its walls at the cut-away portion are extended, as at D, toward the periphery of the wheel, so as to project into said chamber, thus forming a channel, E, which is overhung by the walls of the chamber, and adapted for the reception of suitable absorbent material, which will be well packed therein, and confined near the central opening of the wheel by a grating, rack, gauze, or other open support, *a'*, at the base of the channel.

H represents a hollow cap, which is formed with the hub C on the outside thereof, and the inner diameter of the cap is greater than the diameter of the end of the axle, which, passing through the central opening of the wheel, is adapted to enter said cap.

The walls B' of the chamber B curve to-

ward each other, so as to form an arch, in the crown of which is an opening or inlet, J, which will be covered by a plate or cap, K, which, by means of suitable lugs, nuts, bolts, screws, or devices, will be properly connected to the chamber, thus closing the chamber at all sides, excepting at its place of communication with channel E.

The axle will be passed through the hubs and into the caps H, and secured to the wheel by means of linchpins L, which will be inserted into openings in the axle through apertures *b*, made in the caps H, said pins being shorter than the diameters of the caps, but longer than the diameter of the central opening of the wheels.

The inlets J will be opened and a proper quantity of lubricant introduced into the chambers B, the plates K then being secured, said lubricant being absorbed by the packed material in the channels E, and thus conveyed to the central openings of the wheels, whereby the axle will be lubricated.

It will be seen that when the wheels rotate the overhanging walls of the chamber B direct the lubricant to the absorbent material in the channels E, regardless of the centrifugal action of the lubricant, thus insuring the ready and continuous lubrication of the axle or journal.

The caps H inclose the ends of the axle and the linchpins, and also prevent dirt passing between the wheels and axle, and collect the lubricant escaping from the axle.

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

The projecting channel E, with open support *a'*, in combination with the arch-shaped chamber B and cap K, substantially as and for the purpose set forth.

EDWARD MCHUGH.

Witnesses:

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