

J. GOWLAND.
Car-Wheel.

No. 218,256.

Patented Aug. 5, 1879.

Fig. 1.

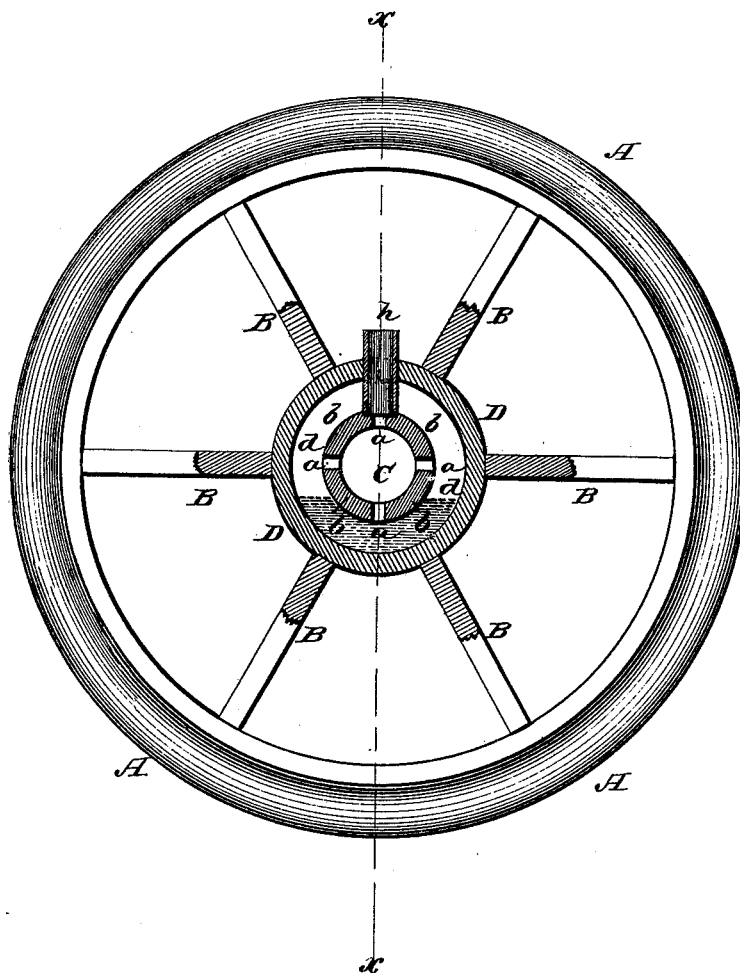
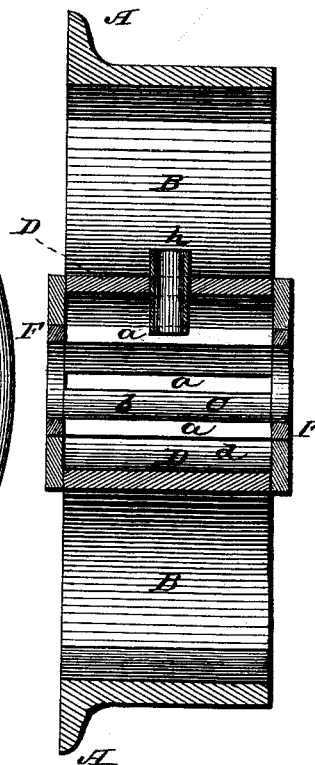


Fig. 2.



Witnesses:

P. C. Dietrich
Frank H. Duffy

Inventor

John Gowland
Per *C. H. Watson & Co.* Attorneys.

UNITED STATES PATENT OFFICE.

JOHN GOWLAND, OF PHILIPSBURG, PENNSYLVANIA.

IMPROVEMENT IN CAR-WHEELS.

Specification forming part of Letters Patent No. **218,256**, dated August 5, 1879; application filed April 14, 1879.

To all whom it may concern:

Be it known that I, JOHN GOWLAND, of Philipsburg, in the county of Centre and State of Pennsylvania, have invented certain new and useful Improvements in Car-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a self-oiling car-wheel, as will be hereinafter more fully set forth.

In the annexed drawings, to which reference is made, and which fully illustrate my invention, Figure 1 is a side elevation of my improved car-wheel, showing a cross-section through the hub. Fig. 2 is a vertical section of the same through the line *x x*, Fig. 1.

A represents the rim of the wheel, connected by a series of radial bars, B B, with the hub. The hub is composed of two concentric shells, C and D, having the space closed between them at their ends by annular plates or rings F F.

The entire wheel and hub may be cast in one piece; or the outer shell, D, may be made to slide in place between the inner ends of the radial bars B B, and the inner shell, C, slide in the end plates, F, after which the parts may be united or fastened together in any suitable manner that will admit of their being loosened and removed, if desired.

The inner shell, C, is formed with a series of longitudinal slots, *a a*, extending the entire length of the shell from one end plate, F, to the other. Between the slots *a* said inner shell, C, forms the horizontal bars *b*, which constitute the bearing for the axle.

d is the space or chamber formed between the two shells C D for oil, and oil is admitted into said chamber through an inlet-tube, *h*.

This tube extends down through the outer shell, D, and into the inner-shell to about an eighth of an inch from the axle.

With the long slots *a* the whole length of the hub can be oiled, so as to wear the axle smooth the whole length of the bearing.

Only enough oil should be put in the hub to fill it to the bottom side of the axle, thus preventing the oil from running out when the tube is on the bottom side of the hub; and there is no necessity of using any plug or other device for closing the end of the tube.

I am aware that car-wheels have been made with a continuous oil-chamber around the inner portion of the hub, and that such inner portion of the hub has been provided with a continuous slot for the flow of oil from the chamber to the axle; but under my construction the interior portion or shell is formed with a series of longitudinal slots extending from end to end thereof, and hence the oil will be more equally and perfectly distributed over the axle.

I am also aware that a car-axle box has been formed with a chamber around the inner portion or shell of the same, and that this inner shell has been formed with a series of short longitudinal slots; but in such instance the slots do not extend from end to end of the inner shell.

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

A car-wheel hub having a slotted interior shell, C, an outer shell, D, and a tube, *h*, passing from the outer to the inner shell, whereby the outflow of oil from the chamber around the two shells is avoided, as herein set forth.

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

JOHN GOWLAND.

Witnesses:

JAMES G. WIGLEDMAN,
JOHN H. WAGONER.