

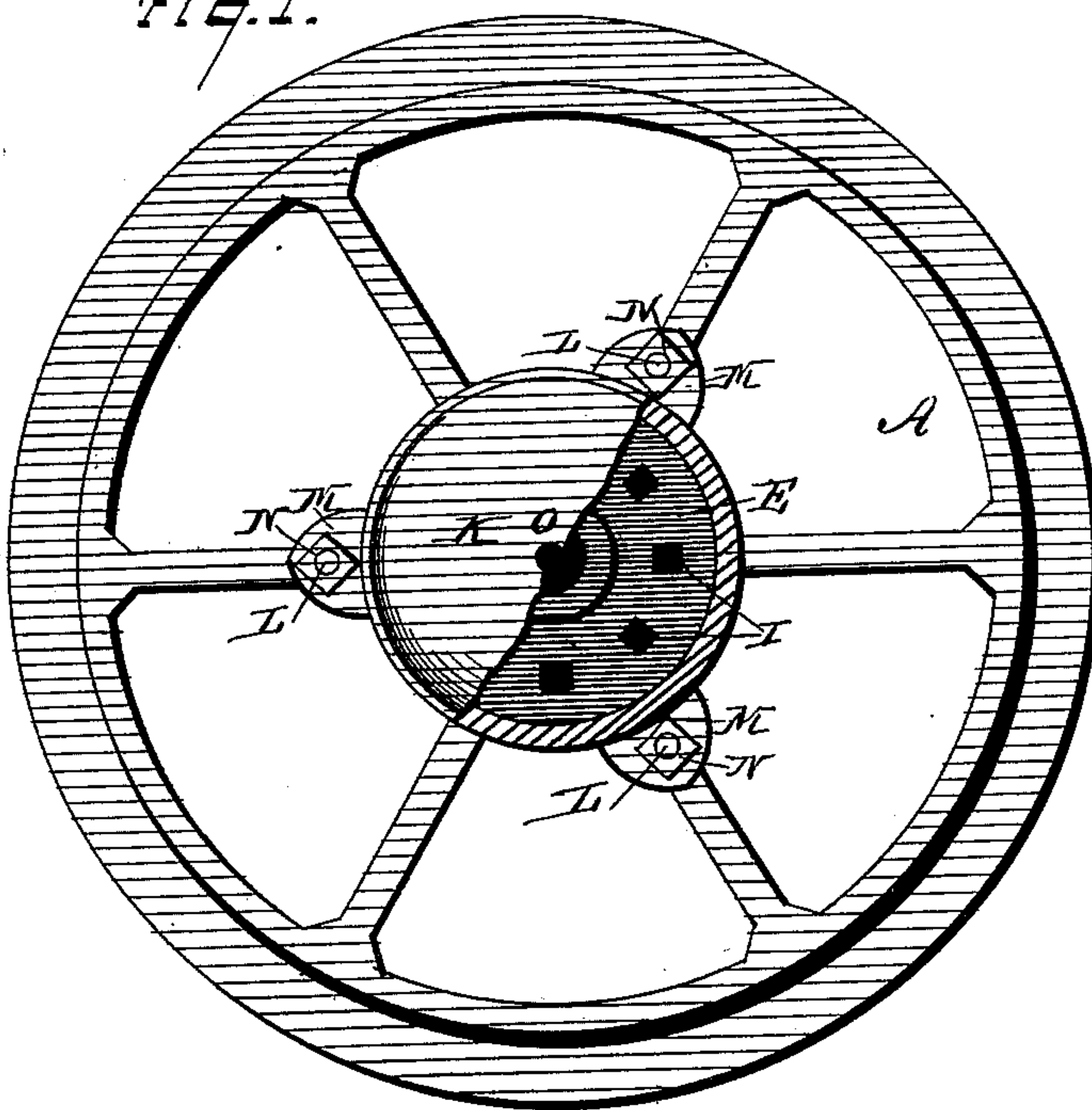
(Model.)

J. H. WATT.
Car Wheel.

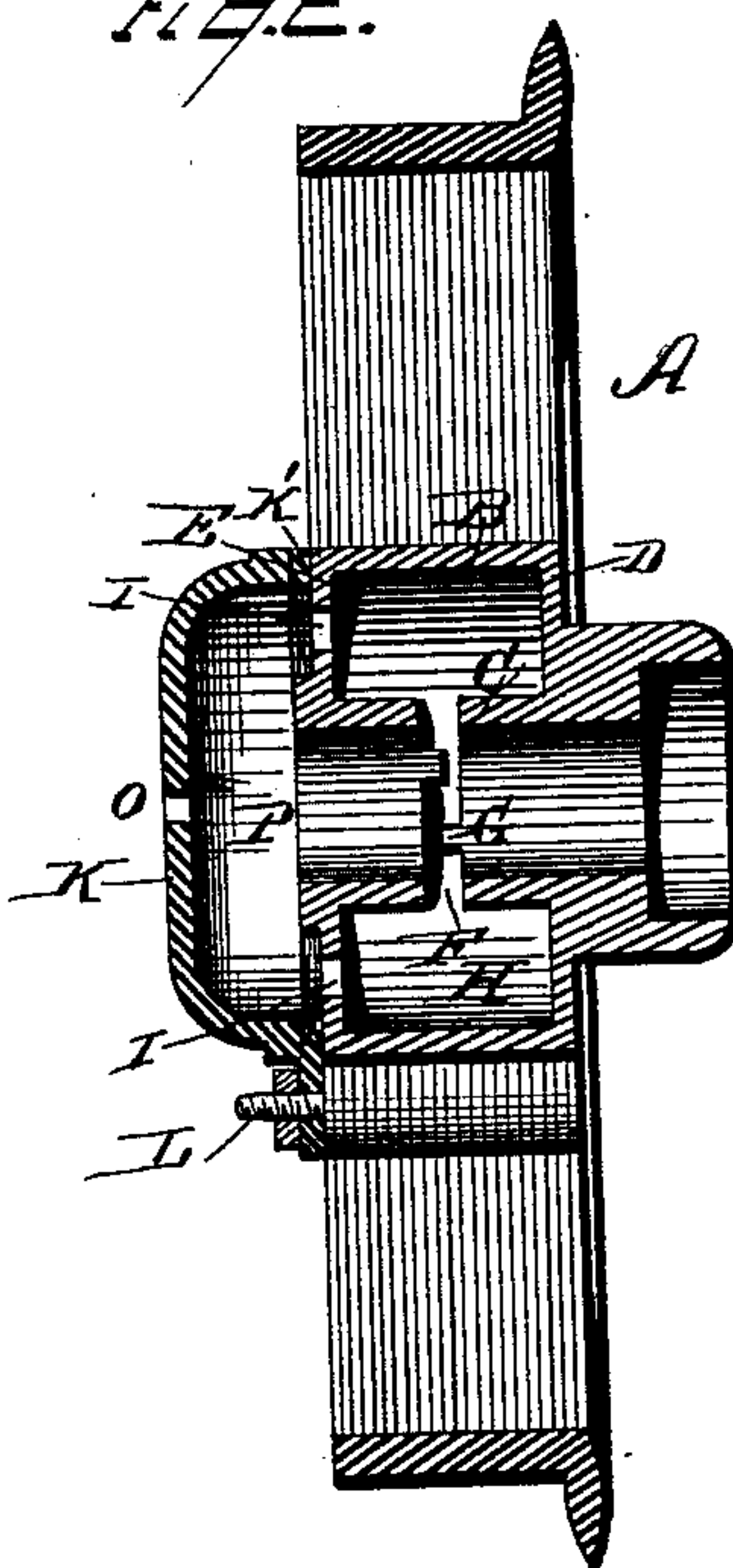
No. 234,098.

Patented Nov. 2. 1880.

Fig. 1.



Top 2.



Witnesses:

WITNESSES.
A. C. M^r. Arthur

John C. Rogers

Inventor.

James H. Katt,

Dr. Alexander

Attorney.

UNITED STATES PATENT OFFICE.

JAMES H. WATT, OF BARNESVILLE, OHIO, ASSIGNOR TO J. H. WATT & BROTHERS, OF SAME PLACE.

CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 234,098, dated November 2, 1880.

Application filed September 16, 1880. (Model.)

To all whom it may concern:

Be it known that I, JAMES H. WATT, of Barnesville, in the county of Belmont and State of Ohio, 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification, in which—

Figure 1 is a front view, partly in section, and Fig. 2 is a central vertical section, of my car-wheel.

The object of my present invention is to provide improved means for introducing lubricating-oils into the annular chamber of that class of car-wheels for which Letters Patent of the United States were granted to me June 4, 1878.

As constructed under said patent the wheel A was cast with a hub composed of two annular concentric walls, B C, united at their ends by the end plates, D E, formed integral with the two concentric shells or cylinders. A continuous annular slot, F, was formed through the inner or central shell, C, projections G being extended from the walls of said slot, so as to project alternately from its opposite sides. The car-axle passed through the inner shell, and in order to admit of the introduction of lubricating-oil into the annular chamber H, formed between these two shells, a hollow screw-threaded plug was cast into one of the end plates and a suitable screw-stopper provided therefor.

The objections to such arrangement for introducing the oil into the annular chamber are as follows: A wrench is always necessary for the purpose of removing the stopper, and after its removal, the stopper being quite small, is liable to become mislaid and lost; also, since there is but one inlet whereby the oil can be introduced into the annular chamber, the wheel must necessarily be placed in one certain position whenever it becomes necessary to pour in the oil, and, finally, under such construction, it is found difficult to clean out the sand from the annular chamber.

By my present invention I obviate these defects in the following way, to wit: Through the end plate, E, of the hub, which constitutes the outer wall of the annular chamber, I form a series of apertures, I, of any desired shape and number, so that a series of passages will be made between the annular chamber and the exterior face of the said end plate. Over this end plate I secure a concave cap, K, with its concave side toward the hub, a suitable packing-ring, K', being interposed between the plate and the cap, in order to form a tight joint between the two. As a ready means for securing this cap to the hub I cast several screw-threaded bolts, L, with the latter, and form the cap with a corresponding number of ears, M, having openings to receive the said bolts, upon which nuts N are screwed down after the cap has been applied to the hub.

Through the center of the cap I form a single opening, O, through which access may be had to the chamber P, formed at the side of the end plate, E, by the concavity of the cap. Hence, to introduce oil into the annular chamber H of the hub it is only necessary to pour a requisite quantity of the oil through the opening O into the chamber P, from whence the oil will of itself flow into the annular chamber through the apertures I, which establish communication between the annular chamber of the hub and the chamber which is formed alongside of the same by the concaved cap. The oil in the outer or cap chamber, P, naturally settles in the lowest portion thereof, and hence as the wheel is rotated the oil will flow successively through the apertures I into the annular chamber.

The cap K is applied to the outer end of the hub, and hence covers over the end of the axle, thereby protecting the same from dust.

I am well aware that it is not new to provide the end of the box with an oiling-hole, and also that channels or grooves have before been made in the box, by means of which the oil is conveyed to the axle. Such features I do not therefore claim; but

What I do claim, and desire to secure by Letters Patent, is—

1. The within-described car-wheel provided with an annular chamber and having the outer end of its hub cast with a plate or wall in which are a series of apertures, substantially
5 as and for the purpose herein set forth.

2. A car-wheel provided with an annular chamber and having the outer end of its hub cast with a plate or wall in which are a series of apertures, in combination with the cap K,

with aperture O, substantially as and for the purpose herein set forth.

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

J. H. WATT.

Witnesses :

H. VANCE,

E. T. HANLON.