

(No Model.)

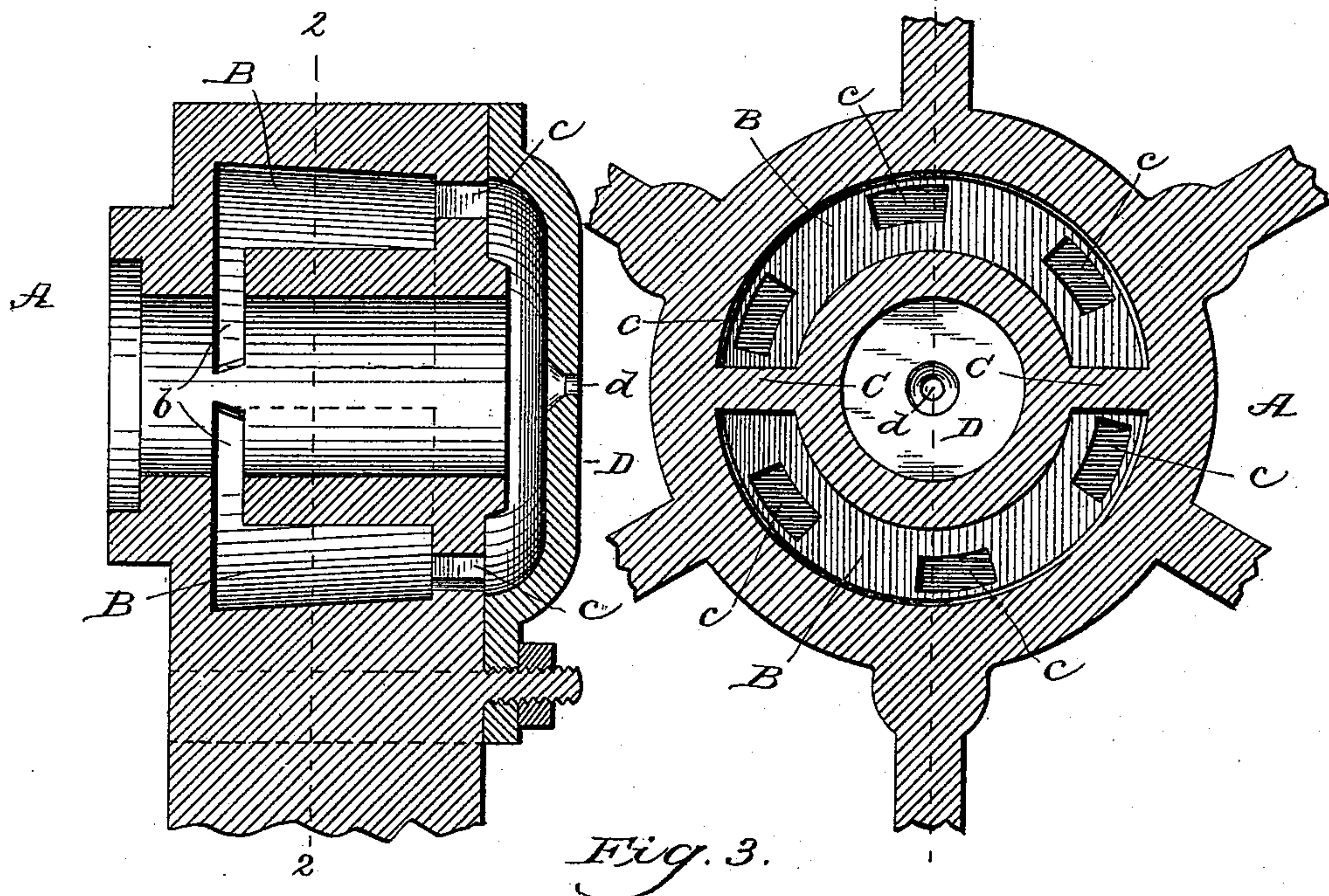
J. H. WATT.  
SELF OILING CAR WHEEL.

No. 494,661.

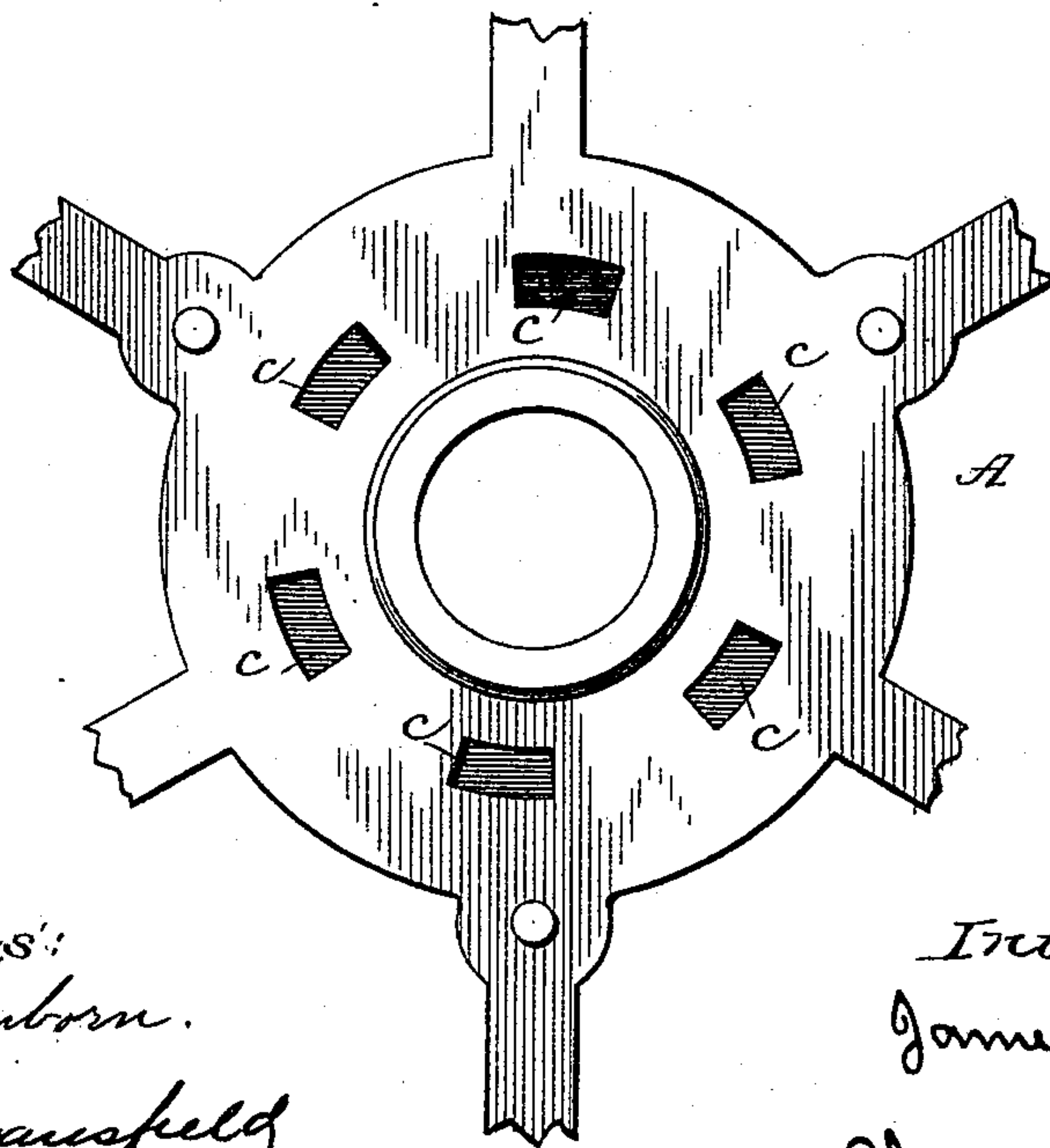
Patented Apr. 4, 1893.

*Fig. 1*

*Fig. 2.*



*Fig. 3.*



Witnesses:

Wm. A. Schoenborn.

James Mansfield

Inventor:

James H. Watt

by  
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Attys



# UNITED STATES PATENT OFFICE.

JAMES H. WATT, OF BARNESVILLE, OHIO, ASSIGNOR TO THE WATT MINING CAR WHEEL COMPANY, OF SAME-PLACE.

## SELF-OILING CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 494,661, dated April 4, 1893.

Application filed December 24, 1892. Serial No. 456,279. (No 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  
5 useful Improvements in Self-Oiling 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  
10 specification.

This invention is an improvement in self oiling wheel-hubs, especially designed for coal car wheels, and whenever the wheels are revolv-  
15 ably mounted on their axles; and its object is to insure the greatest supply of lubricant at the point where the greatest friction or wear is engendered, to wit—at the butt of the wheel-hub, and spindle, and what I consider  
20 original in my wheel hub is that it has two or more oil-holding chambers instead of one, and permits the oil to pass over the axle right at the butt of the hub. The point of the axle is always well lubricated, but it is not so with  
25 the butt of the wheel, and my wheel overcomes that difficulty. There being two boxes instead of one adds very materially to the strength of the wheel and will allow much less iron in the hub to get the desired strength.

30 Another very great advantage which I claim is, that there being a wall between the boxes therefore the oil cannot so freely flow over the spindle when the wheel is idle and therefore it will be better oiled when again started  
35 after a short stop.

The invention therefore consists in the novel construction of the wheel as hereinafter described and illustrated in the drawings, in which—

40 Figure 1 is a transverse central section through a wheel-hub embodying my invention. Fig. 2 is a vertical sectional view on line 2—2 Fig. 1. Fig. 3 is a front view.

The hub A of the wheel is cast with an annular series of closed chambers B, B, two only  
45 being shown, separated by radial partitions C, C, so that there is no direct communication between said chambers. Through the front wall of the hub are openings c through  
50 which said chambers can be filled with lubri-

cant and a cap D is bolted to the front end of the hub as indicated so as to cover said openings. Said cap has a central opening d and the oil can be poured therethrough into the cap and thence pass into the chambers  
55 substantially as described and shown in my patent No. 234,098, of November 2, 1880. At the butt end of the hub are transverse slots b, one at the rear end of and communicating with each chamber B, and through these slots  
60 the lubricants can escape from the chambers and onto the spindles at the butt and larger end thereof where the greatest friction and wear usually take place, the lubricant working downward on the spindle, and fully lu-  
65 bricating the whole hub bearing.

It will be seen that my wheel contains two distinct oil chambers that are in no wise connected in the hub. The openings in the outer wall of the wheel permits the oil to flow into  
70 either one of them or both at the same time when the wheel is in the proper position to receive oil in both at the same time. I look upon this as quite an advantage in a wheel. There being two separate chambers, the axle  
75 is much more likely to be immersed in oil than when there is but one. By this device the oil is forced to strike the axle right at the hub and butt of the wheel, and the point is always oiled as that is where the oil enters  
80 from the chambers.

My observation in self-oiling wheels for many years teaches me that in the ordinary construction of self-oiling wheels the oil flows  
85 off too easily and escapes into the lower part of the box, but this invention prevents this to a very great extent. The oil is supplied near the butt end of hub and largest part of spindle, instead of near the center or small end. This arrangement of chambers allows  
90 the hub bearing on the spindle to be almost continuous, and the partitions form strong braces to reinforce the bearing portion of its hub.

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

A self oiling hub having an annular series of non-communicating oil chambers around  
100 its bore, and transverse slots at its butt end

about as long as the chambers are wide es-  
tablishing communication between its bore  
and said chambers, and partitions between  
said chambers, openings in the front end of  
5 hub communicating with said chambers, and  
a cap secured thereon, all constructed and ar-  
ranged to operate substantially as and for the  
purpose described.

In testimony that I claim the foregoing as  
my own I affix my signature in presence of two 10  
witnesses.

JAMES H. WATT.

Witnesses:

W. F. SMITH,

E. M. VAN CLUEE.