

(No Model.)

L. McK. BULLITT.

CAR WHEEL.

No. 387,855.

Patented Aug. 14, 1888.

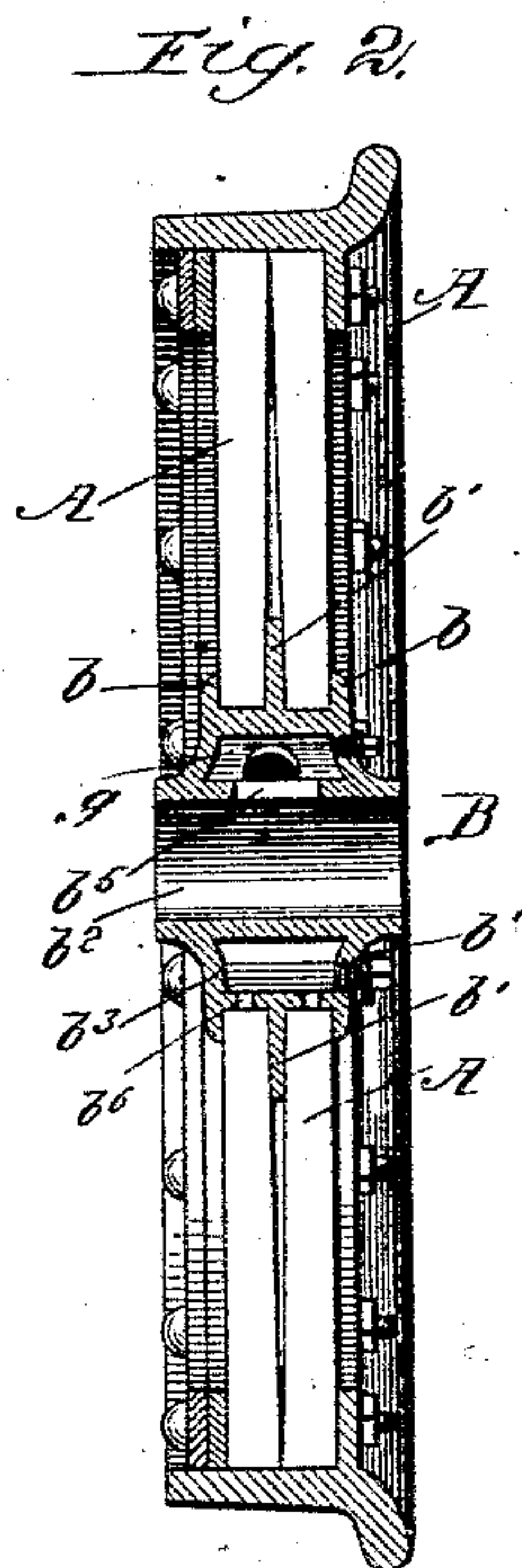
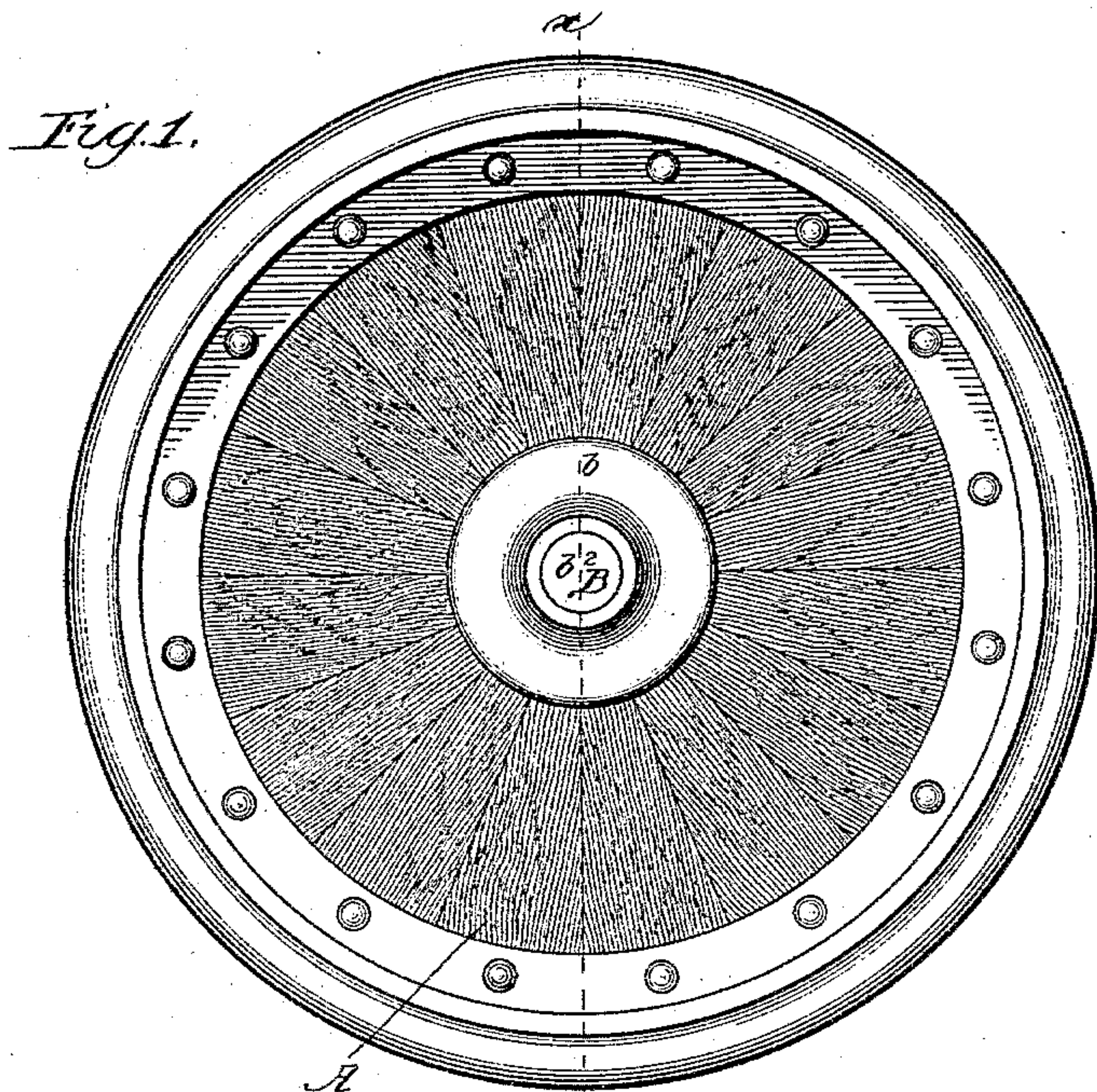


Fig. 3.

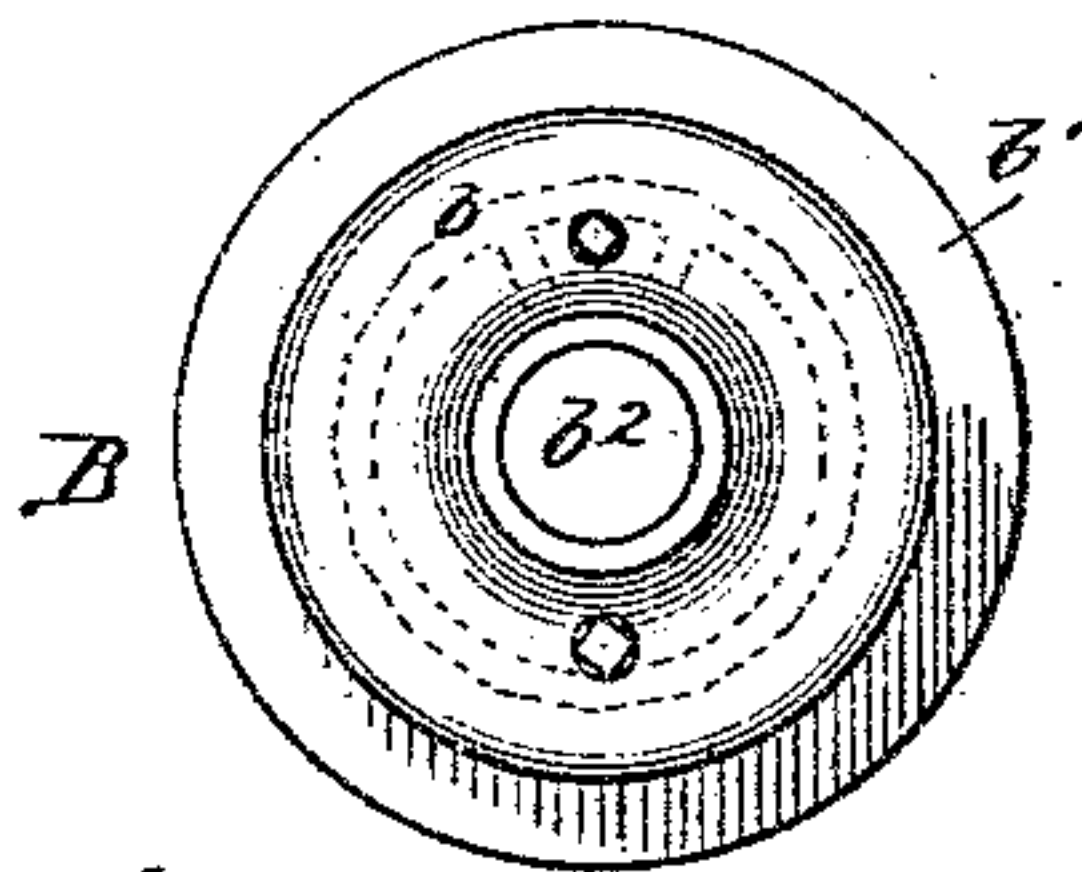
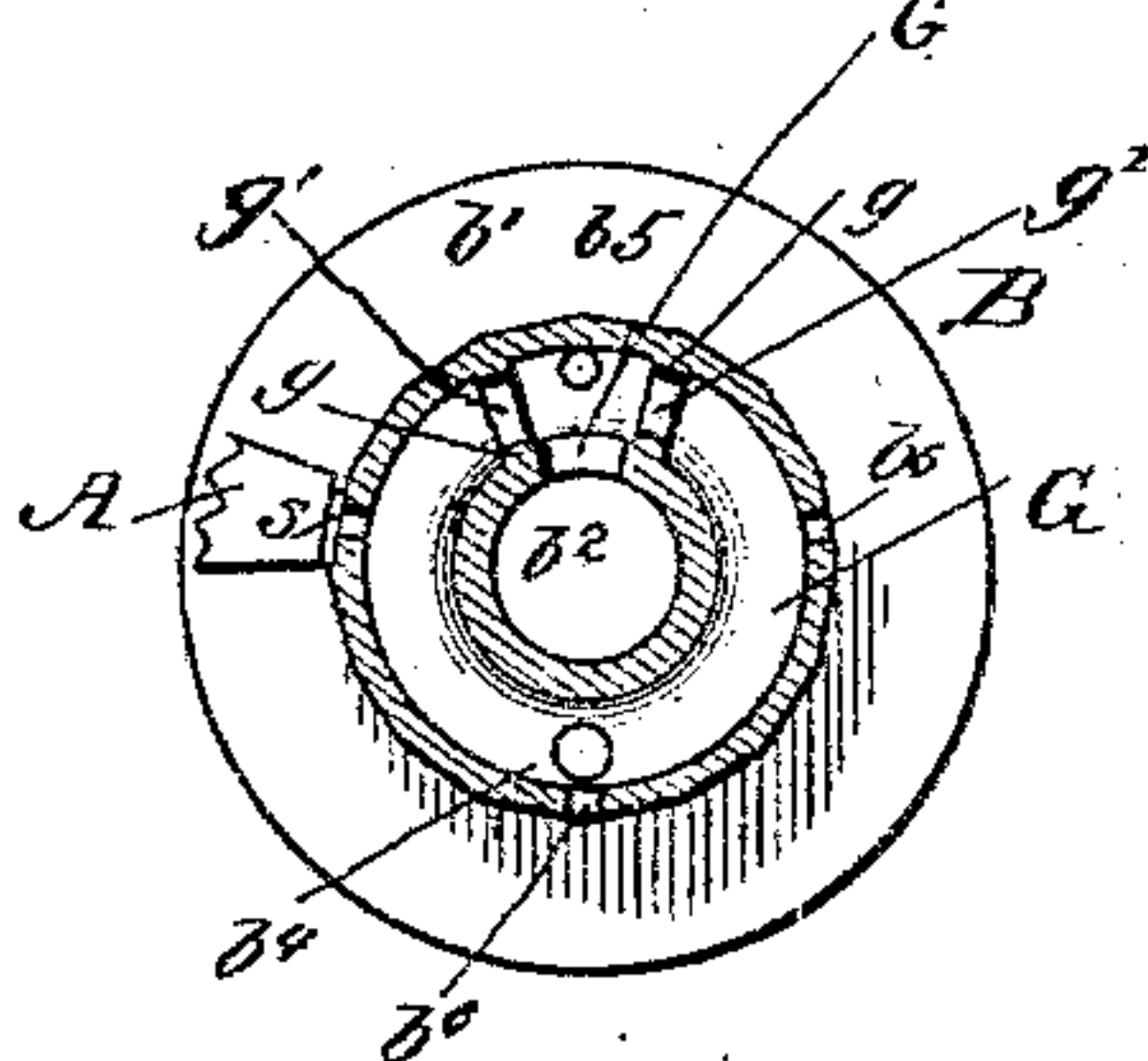


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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CAR-WHEEL.

SPECIFICATION forming part of Letters Patent No. 387,855, dated August 14, 1888.

Application filed January 19, 1888. Serial No. 261,239. (No model.)

To all whom it may concern:

Be it known that I, LOGAN MCKNIGHT BULLITT, a citizen of the United States, residing at St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Car-Wheels, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My present invention has relation to car-wheels designed to rotate freely upon their axles, and particularly does it relate to the improvement of that class of such wheels wherein provision is made for the lubrication of the journals without the necessity for the employment of separate journal-boxes.

The object of my invention is to provide a simple, durable, and effective means whereby a thorough lubrication of the journals may be secured; and to this end my invention consists in the various novel features of construction, hereinafter described, illustrated in the accompanying drawings, and particularly defined in the claims at the end of this specification.

Figure 1 is a view in side elevation of a car-wheel having my improvements applied thereto. Fig. 2 is a view in vertical cross-section on line *xx* of Fig. 1. Fig. 3 is a detail view, in side elevation, of the hub of my improved wheel. Fig. 4 is a view in vertical section through the hub at a point immediately adjacent its central web.

My present invention is shown as applied to a car-wheel, the body of which is composed of two sets or series of wooden segments, A, the inner ends of which bear against the periphery of the hub B, and are there held in the annular grooves formed by the flanges *b* and the intermediate web, *b'*, while their outer ends are connected with the tire C of the wheel by means of the retaining-ring D, the ring or fillet E, and the through-bolts F, which latter pass through the retaining-ring, the fillet, and the outer ends of the segments, and hold these parts securely to the depending flange *c* of the tire. It will be understood, however, that while I have shown my invention as applied to a car-wheel having a wooden body con-

structed and connected with the hub and periphery in the manner above defined, and while the invention is particularly suited to this kind of wheel, I do not wish my invention to be understood as restricted to such form of wheels, since it is applicable, also, to car-wheels of various other constructions.

The central portion of the hub B of the wheel consists of an annular bearing-plate, *b²*, which, together with the end plates, *b³* and *b⁴*, and the periphery of the hub, form a closed annular chamber, G, adapted to receive a quantity of suitable lubricant. Across this annular chamber G extend the division-plates *g*, having openings *g'* therein communicating with the main portion of the annular chamber G, and through the annular bearing-plate *b²* of the hub, at a point between the division-plates *g*, is formed a delivery duct or channel, *b⁵*, through which the lubricant will pass to the journal of the car-axle. My purpose in thus providing the annular chamber G with the division-plate *g* is to form a receptacle, G', for cotton waste or like material, through which the oil or other lubricant will gradually filter before passing through the delivery-duct *b⁵* to the face of the journal. It will be seen that by thus providing a receptacle for the cotton waste at a point opposite the delivery-duct *b⁵* it will be in the best position for delivering the lubricant to the journal, and as this receptacle G', wherein the cotton waste is retained, communicates through the openings in the division-plates with the main body of the chamber G the cotton waste will be saturated with the lubricant so long as there is any within the annular chamber, and while preventing the too free escape thereof will insure its proper delivery to the journal. Through the end wall, *b⁴*, of the hub B there are preferably formed two openings, fitted, respectively, with the screw-threaded caps H and H', one of these openings communicating with the annular chamber G, and serving to admit the lubricant thereinto, while the other opening communicates with the receptacle G' for the purpose of permitting the introduction of cotton waste to such receptacle.

From the foregoing description it will be seen that when the receptacle G' has been suit-

ably filled with cotton waste or like material, and the lubricant has been introduced into the annular chamber G, the cotton waste will speedily become saturated with the lubricant, which will gradually pass thence through the delivery-duct b^5 onto the wearing-face of the journal. By thus forming the hub B with a chamber for lubricant about its annular bearing-plate, and by forming the walls of such chamber integral with the annular bearing and periphery of the hub, I am enabled to produce an effective means of supplying lubricant to the journal, and this, too, without increasing to any considerable extent the cost of the wheel. Moreover, it is apparent that by constructing the walls of the chambers G and G' as integral parts of the hub I avoid all danger of the leakage of the lubricant, which would be liable to occur in case the sides of such chamber were formed separate from the hub and attached thereto by bolts.

While I have illustrated in the accompanying drawings what I regard as the preferred embodiment of my improvements, it will be readily understood that the precise details thereof may be varied without departing from the spirit of the invention.

It will be observed that in the periphery of the hub B are several holes b^6 , caused by the withdrawal of the pins which serve to sustain the sand core during the operation of casting the hub. These holes may be subsequently plugged up, or may be stopped, as shown in the drawings, by means of small lead caps s , held in place by the pressure thereon of the inner ends of the wooden segments.

I am well aware of the construction of lubricating devices illustrated in Letters Patent No. 256,841, granted April 25, 1882, and No. 293,070, granted February 5, 1884, and I wish

it distinctly understood that I make no claim to the features of construction of invention set forth in said patents.

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

1. The combination, with a body of a car-wheel, of a hub formed separate therefrom, said hub consisting of a perforated annular bearing-plate, b^2 , an annular chamber, G, for lubricant, the walls whereof are formed integral with said bearing-plate, said chamber surrounding said bearing-plate and being provided with the division-plates g , extending entirely across said chamber and having openings g' therein to form a receptacle, G', for cotton waste or like material, said division-plates being located at each side of the perforation through the annular bearing-plate, whereby the cotton waste may be securely retained separate from the lubricating-chamber and above the opening of the bearing-plate, substantially as described.

2. The combination, with a body of a car-wheel, of a hub formed separate therefrom and having its periphery provided with suitable flanges, and having formed integral with said flanges a perforated annular bearing-plate for the car-axle journal, a closed chamber for lubricant surrounding said bearing-plate and having its walls formed integral therewith, said closed chamber being provided with the division-plates g , having openings g' , to form a cotton-waste receptacle opposite the perforation of said bearing-plate, substantially as described.

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Witnesses:

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