J. QUINN.

Casting Car-Wheel.

No. 204,450. Patented June 4, 1878.

Fig. 1.

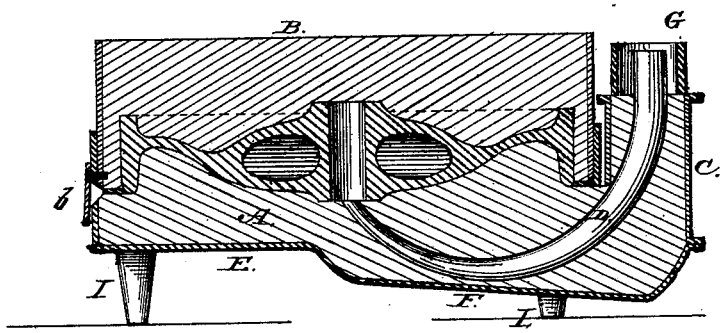


Fig. 2.

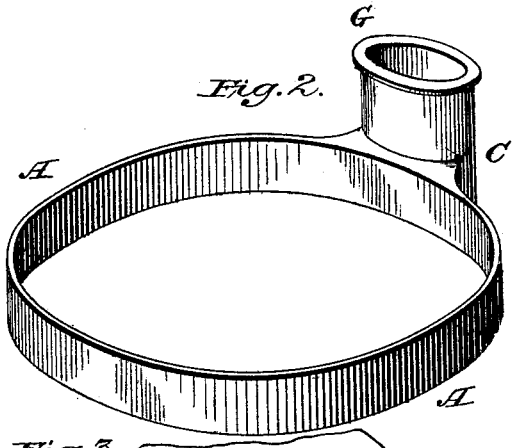
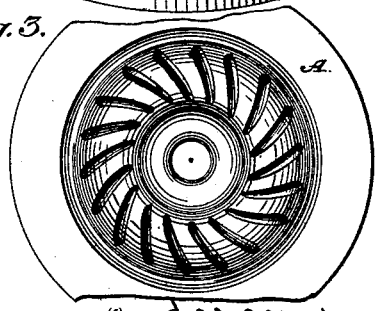


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN QUINN, OF OMAHA, NEBRASKA.

IMPROVEMENT IN CASTING CAR-WHEELS.

Specification forming part of Letters Patent No. **204,450**, dated June 4, 1878; application filed May 8, 1878.

To all whom it may concern:

Be it known that I, JOHN QUINN, of Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Casting 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.

My invention relates to the method of casting car-wheels in which the metal rises from the bottom of the mold; and the nature of my invention consists in the construction of the mold and attachments, whereby the molten metal is allowed or caused to enter the mold at the lowest point, which is in the center, and spread outward in all directions, as will be hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a central vertical section of a molding-flask embodying my invention. Figs. 2 and 3 are detailed views of parts thereof.

A and B represent the two parts of an ordinary molding-flask for casting car-wheels, supported upon a bottom plate, E, having suitable legs I I, as shown. The upper part B of the flask has lugs *b* projecting downward below its lower edge and holding the same on the lower part A, so as to prevent any displacement.

To the lower part A of the mold is cast or bolted an attachment, C, which projects upward on the outside of the flask for a suitable distance. Through this attachment are passed curved sprues D D for the admission of the metal, the inner ends of said sprues terminating at the lowest point in the mold—that is, at the hub of the wheel, in the center of the mold.

The upper ends of the sprues project into a pouring-basin, G, and the molten metal is poured into the same, and then passes through the sprues D D and enters the mold at the center, which forms the hub of the wheel, and is the lowest point of the mold. From this point the metal passes as from a fountain and spreads outward in all directions, filling the mold.

By this means I prevent the well-known defect on the tread of car-wheels called "spotting," and also prevent the wheels from chill-cracking.

The bottom plate E is formed with a concavity or recess at F to receive the attachment C for accommodating the sprues, as well as to render unnecessary any additional amount of sand.

In Fig. 2 I have shown the rim of the lower part A of the flask with the attachment C thereon.

I am aware that it is not, broadly, new in casting metal to allow the melted metal to enter the bottom of the mold. I am also aware that it is not new, in casting car-wheels, to have the melted metal enter the mold at the bottom at the periphery, the molten metal in such case being poured down through a hollow central core, and then passing through curved sprues to the periphery. Hence I do not claim such as my invention.

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

In a mold for casting car-wheels, the combination of the part A with attachment C, bottom plate E with recess F, sprues D D, terminating at the bottom in the center of the mold, and the pouring-basin G, all constructed and arranged substantially as and for the purposes 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 QUINN.

Witnesses:
THOS. MULCAHY,
PATRICK MURPHY.