

J.K. & N.B. Morange,

Casting Car Wheels.

No. 107,083.

Patented Sep. 6 1870.

fig: 1.

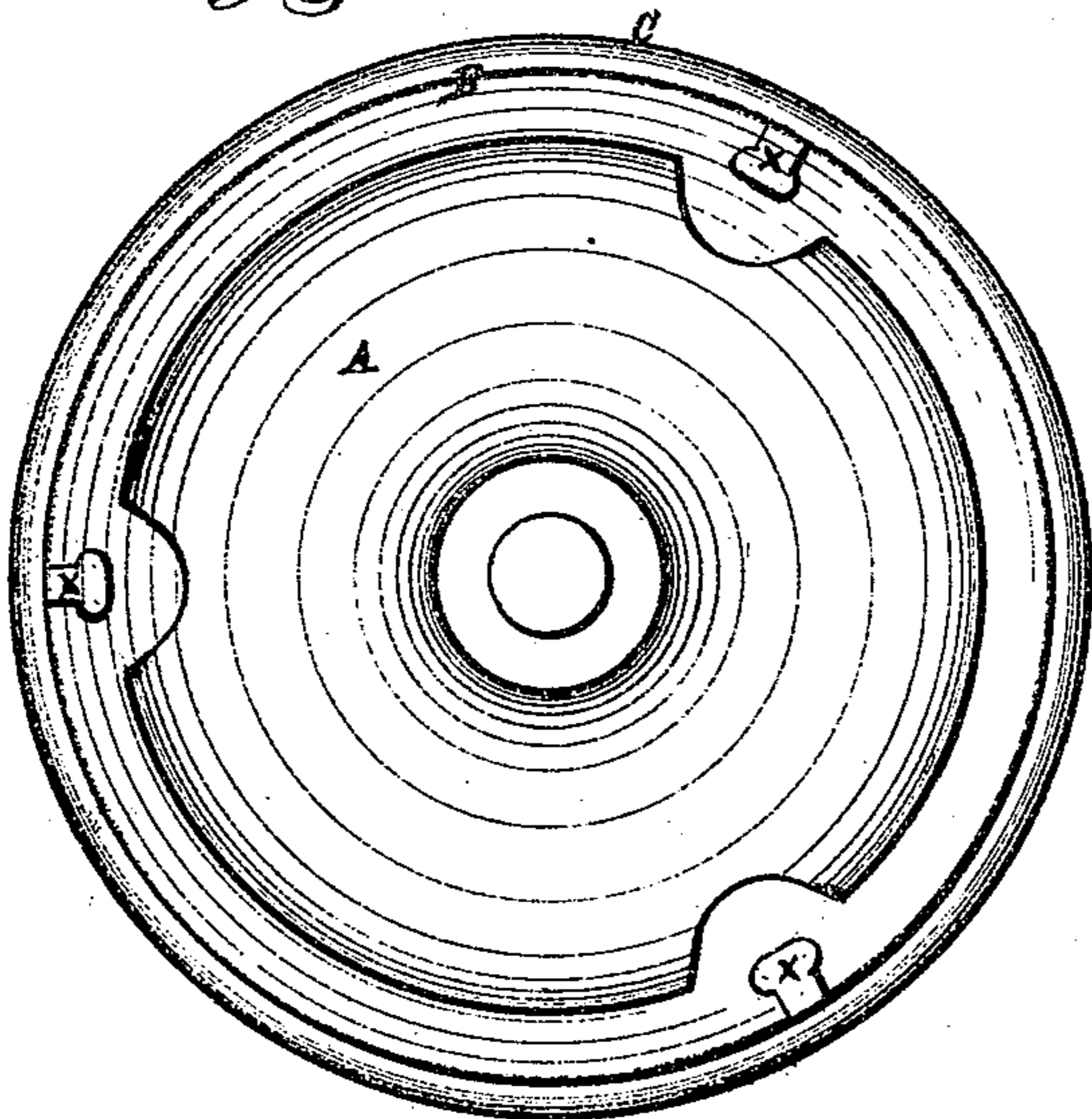
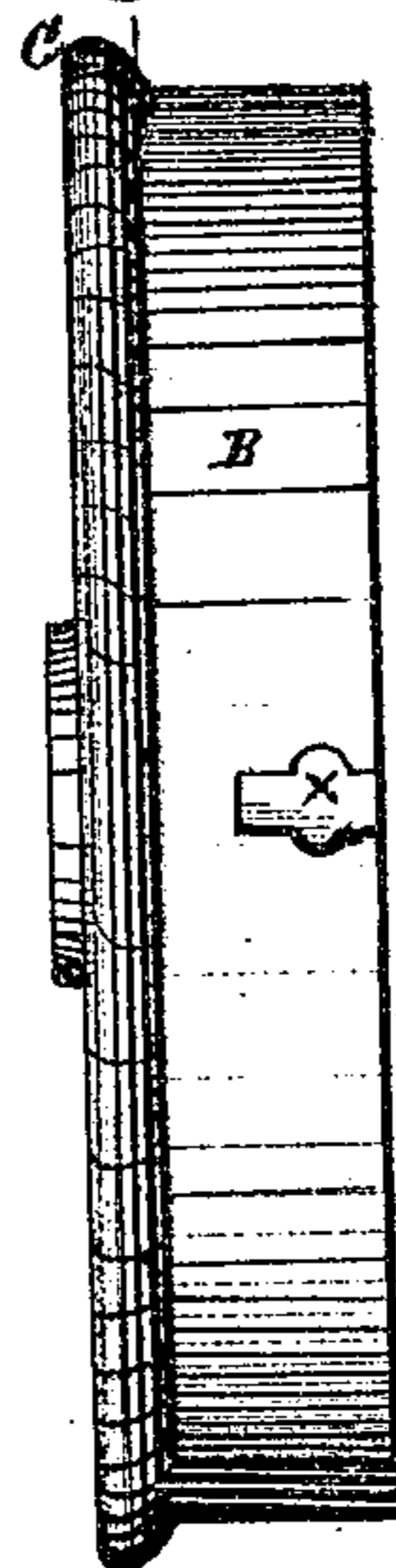


fig: 2.



Witnesses.

A. C. Johnston.
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UNITED STATES PATENT OFFICE

JAMES K. MORANGE AND NAPOLEON B. MORANGE, OF PITTSBURG, PA.

IMPROVEMENT IN CONSTRUCTION OF CAR-WHEELS.

Specification forming part of Letters Patent No. **107,083**, dated September 6, 1870.

To all whom it may concern:

Be it known that we, JAMES K. MORANGE and NAPOLEON B. MORANGE, both of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and Improved Method of Constructing Car-Wheels, the same being an improvement upon the patent granted to Cornelius Kingsland, bearing date the 17th day of December, 1867, and numbered 72,405; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The nature of our invention consists in forming one or more recesses in the periphery or tread of a car-wheel, and filling said recess or recesses with an alloy.

To enable others skilled in the art to make and use our invention, we will proceed to describe more fully its construction.

In the accompanying drawing, which forms part of our specification, Figure 1 is a side or face view of a car-wheel provided with recesses made in the periphery or tread of the wheel, representing two of said recesses filled with an alloy. Fig. 2 is an edge view of the same.

In the accompanying drawing, A represents the face of the car-wheel. B represents its periphery or tread, and C its flange.

The wheel may be constructed in any of the known forms, and in the periphery or tread B is formed during the process of casting one or more recesses, for the purpose of relieving the

body and tread of the wheel from the strain occasioned by the cooling of the casting, as clearly set forth in the patent of Cornelius Kingsland, hereinbefore cited.

We fill the recess or recesses *x* with an alloy formed of thirty-two (32) parts copper, four (4) parts tin, and one (1) part zinc. After the wheel is cast we fill the recess or recesses by pouring into it or them the molten alloy, and then dress off the projecting portion of the alloy, so as to have the outer surface of the filling in the recess or recesses even with the surrounding surface of the wheel.

In filling the recess or recesses in the wheel we wish it clearly understood that we do not confine ourselves to the use of a single alloy for that purpose.

We wish it clearly understood that we do not claim filling the recesses in the periphery of car-wheels with a single metal, as cast-iron, steel, wrought-iron, &c., for that is described in the patent granted to Cornelius Kingsland, December 17, 1867.

We claim—

As described, an alloy for a filling, and used in combination with a recess or recesses in the periphery or tread of a car-wheel, constructed substantially as and for the purpose herein set forth.

J. K. MORANGE.
N. B. MORANGE.

Witnesses:

A. C. JOHNSTON,
JAMES J. JOHNSTON.