

J. SEGMÜLLER.

Improvement in Casting Car Wheels.

No. 124,223.

Patented March 5, 1872.

Fig. 1.

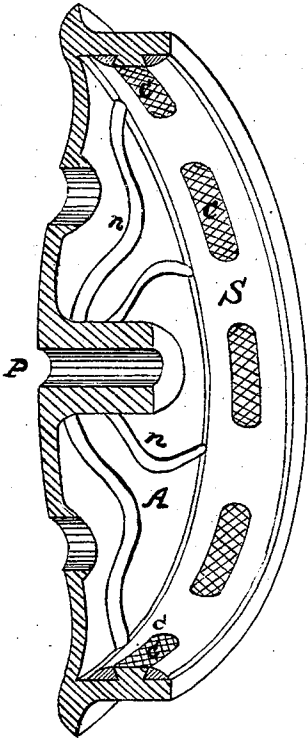


Fig. 2.

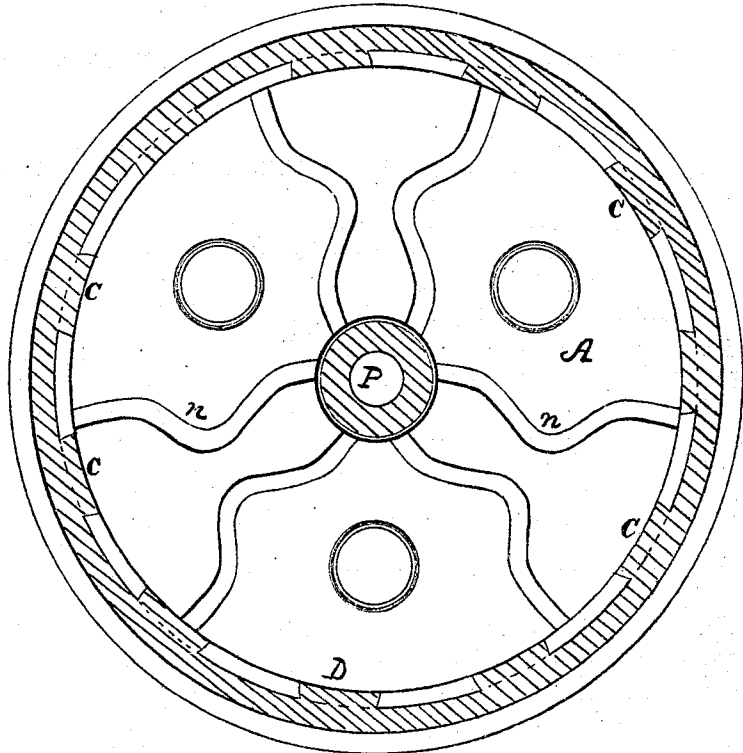


Fig. 3.

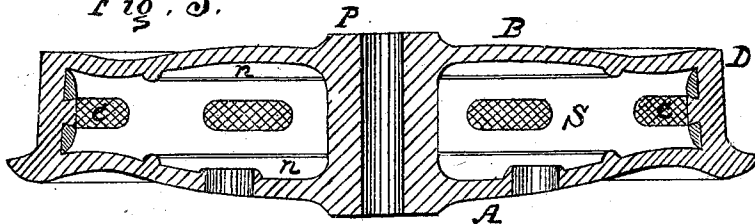
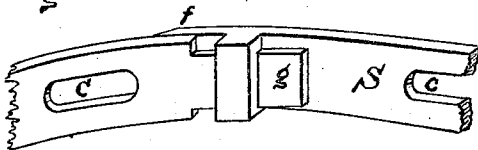


Fig. 4.



—Witnesses—

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IMPROVEMENT IN CASTING CAR-WHEELS.

Specification forming part of Letters Patent No. 124,223, dated March 5, 1872.

To all whom it may concern:

Be it known that I, JOHANN SEGMÜLLER, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and Improved Car-Wheel, of which the following is a specification:

Nature and Objects of the Invention.

My invention consists in combining with the interior of a cast-iron car-wheel a wrought-iron or steel ring, constructed and arranged in such a manner with relation to its rim as to greatly increase its strength and durability without adding much to its cost or weight. To this end I make my improved car-wheel substantially in the way hereinafter described, and which, by reference to the accompanying drawing, will be fully understood.

Description of the Accompanying Drawing.

Figure 1 represents a portion of my car-wheel, partly in perspective and partly in section; Fig. 2, a sectional view of such wheel divided on a radial plane; Fig. 3, car-wheel in transverse vertical section; Fig. 4, perspective view of a sliding joint used to connect the ends of the wrought-iron ring.

General Description.

My invention is applicable to all kinds of car-wheels made of cast-iron, either corrugated, ribbed, spoked, or plain, and whether chilled on the "tread" or not. But I prefer to apply it to a wheel having double walls A B extending from its hub P to its rim D, which walls are provided on their approximate sides with ribs *n n* of a peculiar shape and arrangement, which shape and arrangement are shown in Fig. 2, so, while they act as a brace to the walls, they will yield to such end pressure as takes place when the metal contracts in cooling, and thereby lessen the danger of breakage. With the interior of such a wheel, and just at the point answering to the inside of its

rim D, I combine a strong wrought-iron or steel ring, S, so dovetailed to the cast-iron as to preclude the possibility of displacement; and in such position with relation to the tread or rim of the wheel as to greatly increase its strength and durability. To accomplish this, I take a bar of wrought-iron or tough steel of the proper size and requisite length, and punch a number of oblong holes, *c c*, through it, somewhat wider on one side of the bar than the other. This bar, so punched, is then bent to the form of a hoop or ring, S, having the widest part of the oblong holes *c* toward the inside of the circle, and its ends *f g* so connected by means of a sliding joint, shown at Fig. 4, as to allow for expansion and contraction without impairing its strength. This ring S is to be of the required diameter to conform to the size of the wheel just inside its rim D, and of a width corresponding to the space at that point between the walls A B. When the ring S is so prepared, it may be made red hot, and while in that condition placed in a properly-constructed mold around the outside of the core destined to form the space between the walls A B of the wheel. The molten metal is then to be poured in after the manner of casting other wheels, and which metal, as it runs into the mold, will also flow around the outside of and through the oblong openings *c c* in the ring S, so as to dovetail it in a most superior manner to the rim of the wheel, as shown in Fig. 1.

Claim.

I claim—

Combining with the interior of a cast-iron car-wheel rim, D, a wrought-iron or steel ring, S, substantially in the manner shown and set forth.

JOHANN SEGMÜLLER.

Witnesses:

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