

(No Model.)

D. S. WING.
VEHICLE WHEEL.

No. 328,555.

Patented Oct. 20, 1885.

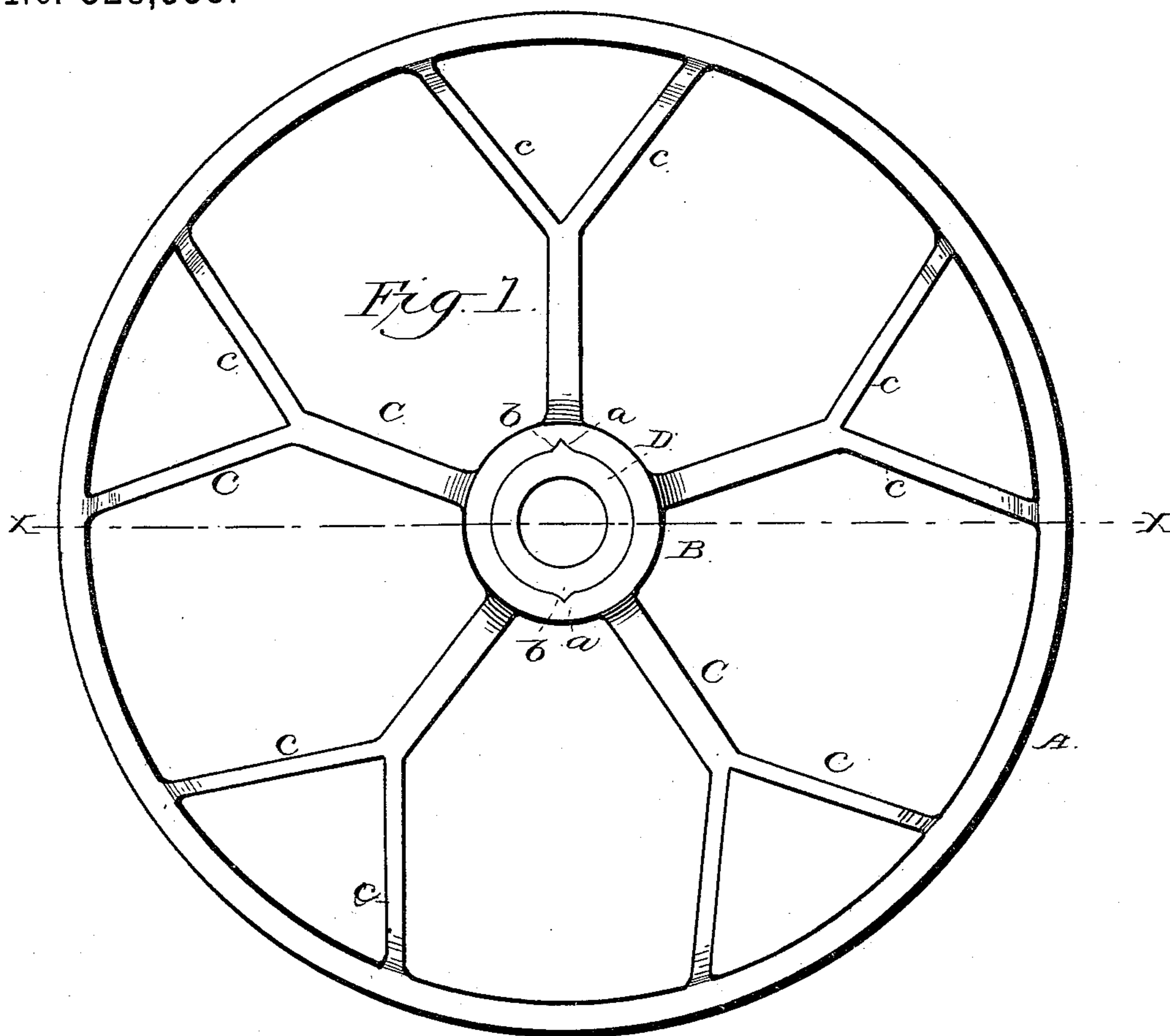
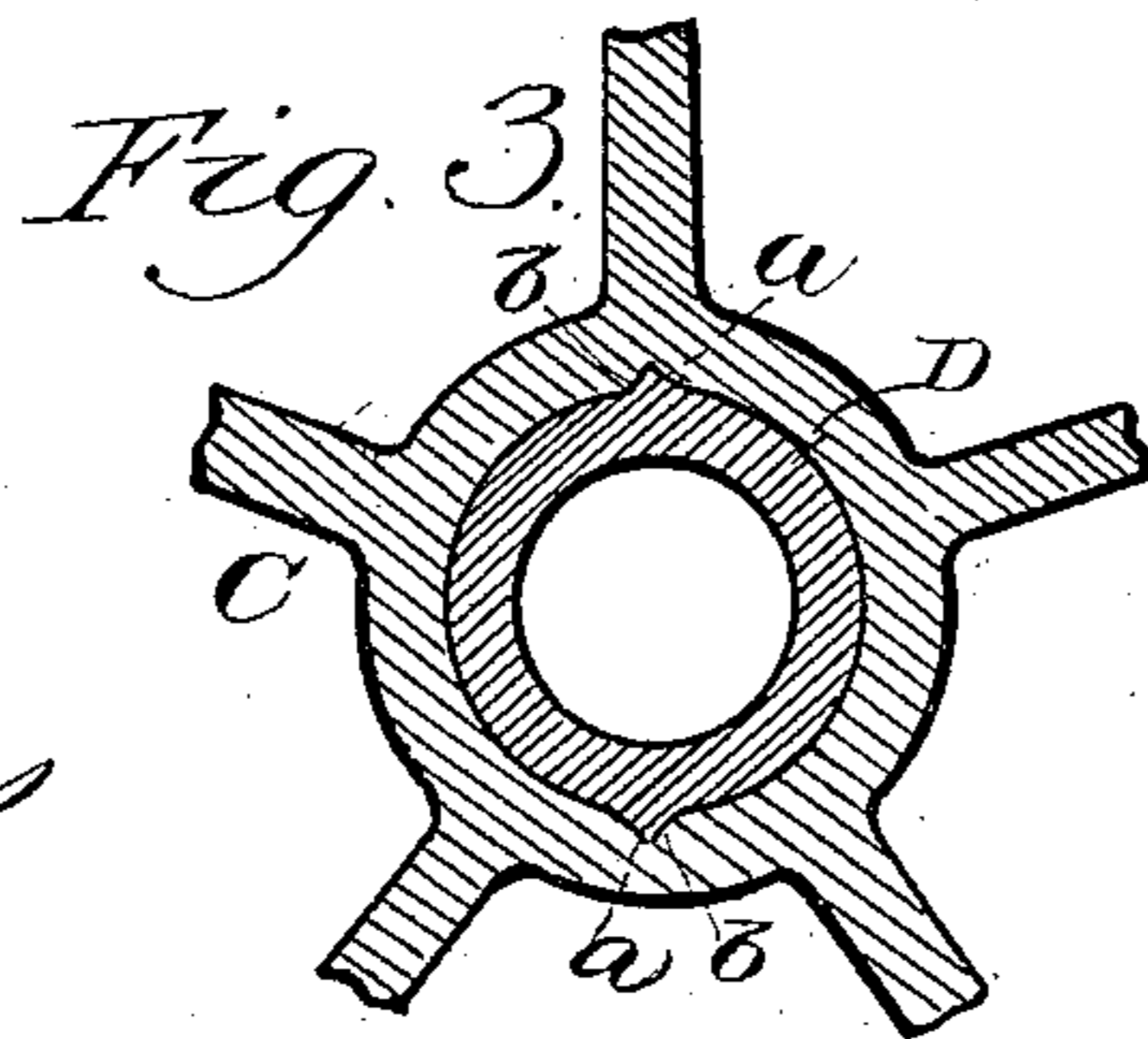
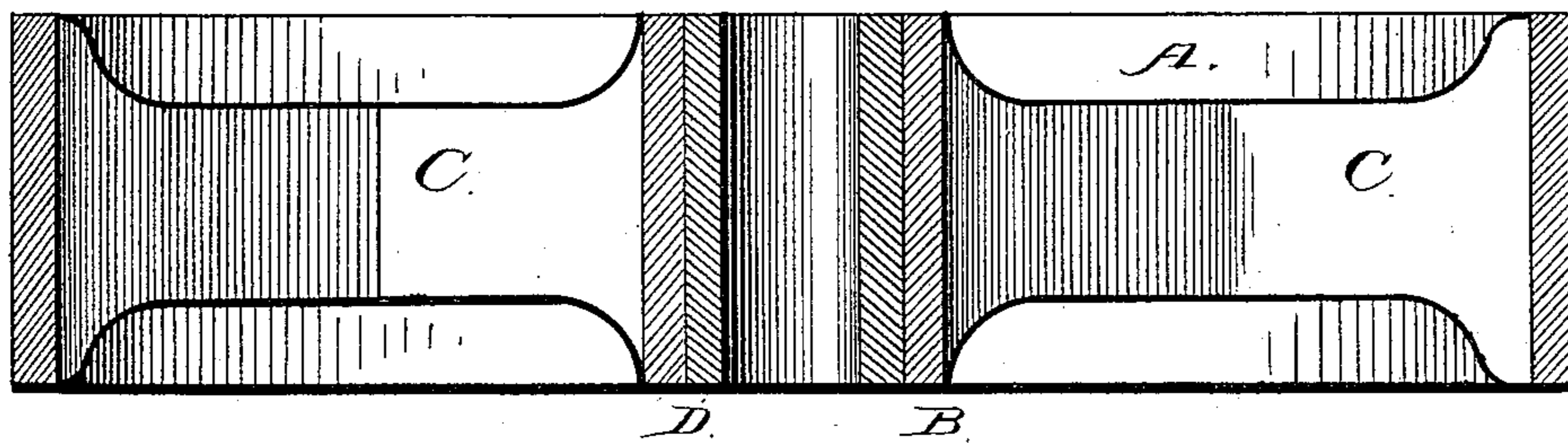


Fig. 2.



WITNESSES:

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DANIEL S. WING, OF SYRACUSE, NEW YORK.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 328,555, dated October 20, 1885.

Application filed January 26, 1885. Serial No. 154,064. (No model.)

To all whom it may concern:

Be it known that I, DANIEL S. WING, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Wheels for Trucks; and I do hereby declare that the following is a full, clear, and exact description of the invention, 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 part of this specification.

This invention relates to a novel construction of wheels for wagons, trucks, and similar vehicles; and it consists, substantially, in the wheel as constructed, and in such other details as will hereinafter be distinctly described, and pointed out in the claims.

A wheel constructed in accordance with my invention possesses the greatest practical degree of strength and durability, and is less susceptible to breakage by the constant use to which it may necessarily be brought. I employ a removable or detachable bushing around the interior of the hub, which may readily be removed and substituted by another when worn or broken.

In most cases prior to my present invention, so far as I am aware, it has been customary to cast the wheel rim, hub, and spokes either entirely separate or only some two of them combined.

In my invention the complete structure, excepting the removable bushing, is made of malleable metal, and is whole or integral in entirety.

Referring to the annexed sheet of drawings, Figure 1 is a view of wheel embodying my invention. Fig. 2 is a sectional view thereof in the line *x x*, and Fig. 3 is a sectional detail view.

Reference being had to the several parts by the letters, A represents the outer rim or periphery of the wheel, B represents the hub thereof, and C designates the spokes as a whole. Said spokes consist of metal ribs radiating from the sides of the hub, and terminating in a forked or bifurcated extremity, as represented at *c c*, which unite integrally with the outer rim, as shown. In this manner all strain exerted in a direct line at any point of the wheel's radius will be received by the divergent spokes, and readily and

uniformly distributed throughout the entire structure.

The manner of construction also serves to brace the parts together, and better adapts them for resisting strains in indirect lines, thus enhancing endurance.

Each extremity *c c* is of width equal to the width of rim A, and at the point of juncture with the hub the main portion of the spokes is correspondingly wide, while at the intermediate portions they are of width a little less. This effects a saving of material in constructing the wheel, and also tends to its lightness.

At points in the hub, preferably diametrical to each other, grooves *a a* are formed into which fit corresponding ribs or flanges, *b b*, formed on the outer surface of the bushing D. This bushing is detachable or removable from the hub, and will be preferably of a material or metal possessing a somewhat softer yet tougher nature than the material of the wheel, whereby the deteriorating effect of grinding the axle is rendered considerably less, and when worn, if desired, it can readily be removed and substituted by another.

It will be apparent that a wheel constructed in accordance with the above description possesses many advantages as a merchantable article, and comprises in itself all that is required as regards lightness, durability, and strength.

Having thus described my invention, what I claim is—

1. A truck or vehicle wheel formed of malleable material, and constructed with an outer rim and hub, united integrally by spokes having divergent or bifurcated arms or brackets connecting with the wide rim, substantially as described.

2. A truck or vehicle wheel formed of malleable material, and constructed with an outer rim and hub, united integrally by the spokes, having divergent arms *c c*, whose general width is less than said rim and hub, and whose extremities are of a width equal to said rim and hub, substantially as described.

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

Witnesses: DANIEL S. WING.
B. O. WHEELER,
C. D. AVERY.