

SAMUEL D. CRAFT.

Improvement in Carriage Wheels.

No. 120,720.

Patented Nov. 7, 1871.

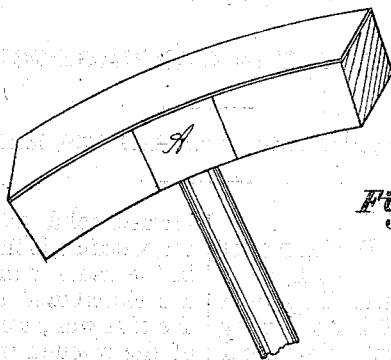


Fig 1.

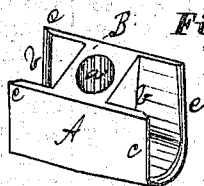


Fig 2.

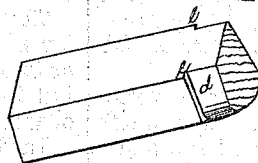


Fig 3.

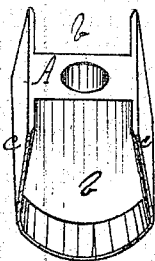


Fig 4.

WITNESSES:

P. Hall Sweet, Jr.
Wm. J. Peyton

INVENTOR:

Samuel D. Craft.
By *James L. Norris.*
Atty.

UNITED STATES PATENT OFFICE.

SAMUEL D. CRAFT, OF NEW YORK, N. Y.

IMPROVEMENT IN CARRIAGE-WHEELS.

Specification forming part of Letters Patent No. 120,720, dated November 7, 1871.

To all whom it may concern:

Be it known that I, SAMUEL D. CRAFT, of the city, county, and State of New York, have invented a certain new and useful Improved Metallic Felly-Connection; and I do hereby declare that the following is a full, clear, and exact description thereof sufficient to enable others skilled in the art to make and use the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a perspective view of the felly secured in the metallic section. Fig. 2 is a perspective view of the metallic section. Fig. 3 is a perspective view, showing the construction of the end of the wooden felly. Fig. 4 is a perspective end view of the metallic section, showing the dovetailed chambers.

This invention is intended as an improvement upon the metallic connections now employed for uniting together the ends of the fellies of carriage-wheels; and to this end it consists in producing such connections from malleable metal, having chambered recesses in the ends, of a dovetail form, which receive and firmly connect together the ends of the wooden sections composing the rims of carriage, wagon, or buggy-wheels, the size and strength of the casting being graduated according to the size and nature of the usage designed for the wheel.

One of the features of this metallic felly-section is that the top portion of the same is left open, and the sides thereof being of the same height as the wooden felly the whole will have a flush uninterrupted surface when the tire is placed upon the wheel. Another and most important feature is that the ends are chambered out so as to produce a dovetailed recess, in order that when the ends of the fellies are introduced into position any pressure exerted upon the rim of the wheel upon its inside will cause the dovetailed ends of the fellies to become more firmly united in the dovetailed recesses of the felly-connection.

In the drawing, A represents the metallic felly-connection, made of any desired size, and preferably of malleable iron. The central portion B is

formed solid, and has an opening, *a*, in its center, within which is inserted the end of the spoke in the usual manner. The ends of the section A are chambered out so as to form a dovetail, *b*, the side walls *c c* of which are of the same height of the wooden felly or fellies composing the rim of the wheel. By this means a flush uninterrupted outer surface around the entire rim of the wheel is produced, so that when the tire is placed upon the same there will be no open spaces or joints. The ends of the wooden fellies are reduced and dovetailed so that they fit snugly and firmly within the dovetail *b* of the metallic section A, and when all are brought together the entire surface of the wooden fellies and the metallic section will be perfectly flush; and when properly painted their presence will scarcely be detected. By forming the metallic connection or section with the dovetails, as shown, and reducing the size of the end of the wooden fellies, and forming thereon the dovetail *d* and shoulders *e*, all bolts are dispensed with and a strong and perfect joint produced, at the same time obviating the necessity of boring holes in the wooden fellies at this point; thus the strength and durability of the wheel is retained.

This improvement is more especially designed for wheels with bent fellies, there being but one or two joints in such when the rim is made up; but I do not limit myself to any particular kind of wheel in applying the improvement.

In the present mode of joining wooden fellies, especially when bolts are employed to secure the ends of the same with the metallic section, the joint almost invariably gives way or crushes in. This improvement obviates all difficulties of this nature. The joint is, with my improvement, rendered more able to resist a crushing force than any other part of the wheel.

The device can be readily and easily constructed, and, being of malleable metal, it can be cheaply produced for the market, and when applied to wheels not materially increase their cost.

I do not claim, broadly, a metallic connection for wooden fellies. Such are not new; but

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

1. As a new article of manufacture, the felly-connection A made of malleable metal and having dovetailed chambers or recesses *b*, as and for the purpose set forth.

2. The metallic felly-connection A having the

dovetailed chambers *b*, in combination with the dovetailed ends of the wooden fellies, when all constructed and arranged as herein shown and set forth.

SAMUEL D. CRAFT.

Witnesses:

GEO. W. MABEE,

ALEX. F. ROBERTS.

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