

F. SEIDLE.
Wheels for Vehicles.

No. 151,442.

Patented May 26, 1874.

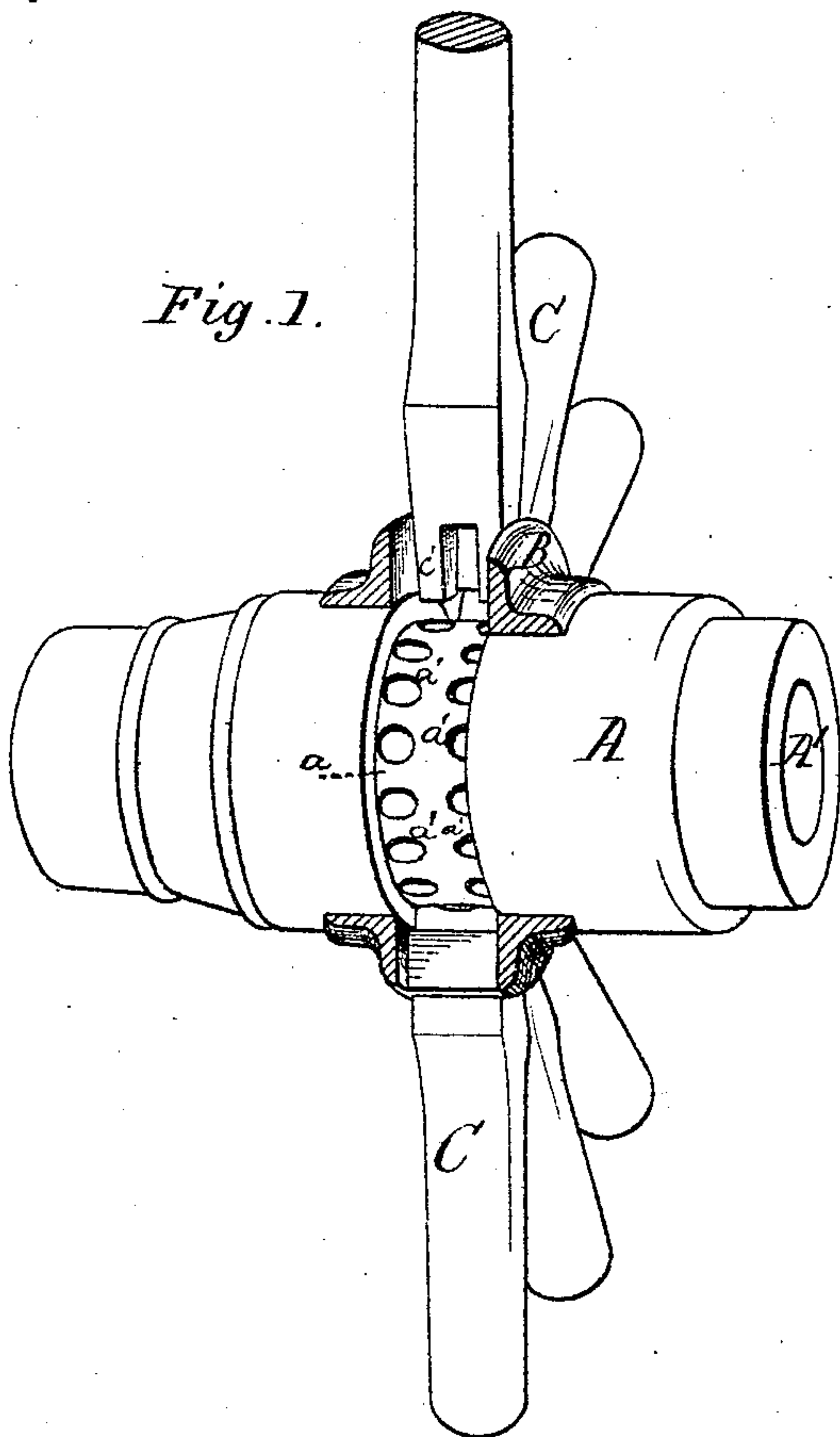
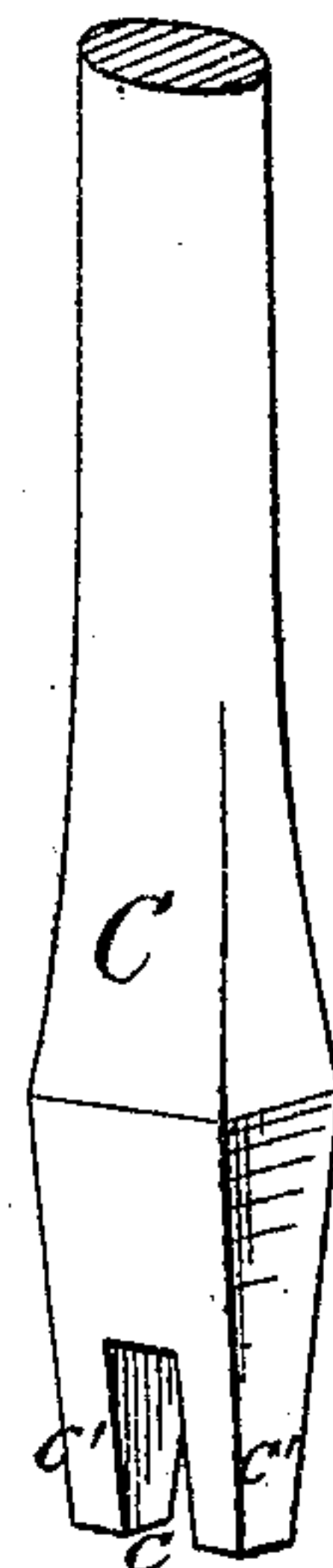


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN WHEELS FOR VEHICLES.

Specification forming part of Letters Patent No. 151,442, dated May 26, 1874; application filed
December 12, 1873.

To all whom it may concern:

Be it known that I, FREDERICK SEIDLE, of Mechanicsburg, county of Cumberland, State of Pennsylvania, have invented certain new and useful Improvements in Wheels for Vehicles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making part of this specification, in which—

Figure 1 represents a perspective view of a portion of a wheel, partly broken away, showing the manner in which the spokes are applied. Fig. 2 is a perspective view of one of the spokes detached.

Similar letters of reference denote corresponding parts in both figures.

The invention relates to a novel construction of the spoke-tenon, and to the manner of uniting the same with the hub; and consists in forming the tapering or tenon end of the spoke with a central slot or kerf, leaving on each side of said slot or kerf a squared tapering tenon without other shoulder than that formed by the base of the intervening kerf, and combining the spoke thus formed with the hub, which is provided with two corresponding sockets or perforations, but cylindrical in form, into which the square tenons are driven, as hereinafter set forth.

In the drawings, A represents a hub of any usual or desired form or construction, provided with the usual longitudinal bore A' for the reception of the axle. Upon the periphery of the hub A, and on the line of the circle of spokes to be applied thereto, a groove, *a*, is cut, of a width equal to the width of the spokes, or thereabout, and about a quarter of an inch, more or less, in depth, and upon either side of this groove a number of holes, *a'*, are bored opposite to each other, and in pairs, *a' a'*, equal to the number of spokes to be applied. B is a perforated metallic band placed around the hub over the groove *a*, and with its squared tapering sockets for the reception of the spokes, corresponding in number to the pairs of sockets *a' a'*, and arranged directly over the same. C represents the

spokes, one of which is shown detached in Fig. 2. The end which is to enter the hub is made slightly tapering in form, and with one of its sides slightly beveled, so as to give it a wedging action in both directions. Thus formed, the central portion of the tenon end is cut away, forming a slot or kerf, *c*, equal to about one-third, more or less, of the width of spoke, or to the space or distance between the corresponding holes *a' a'* in the hub, this slot or kerf being readily formed by means of a saw or other suitable cutter set to cut the slot to the required uniform depths. The spoke thus made has two square tapering tenons, *c' c'*, which are driven into the cylindrical perforations until the base of the slot or kerf *c* rests upon the bottom of the groove *a* in the hub, compressing the squared tenons *c' c'* into the cylindrical perforations *a' a'*, and bringing the solid part of the spoke above the fork or kerf *c* within the periphery of the hub in such manner as to secure the entire strength of the solid spoke at the point where the greatest strain is felt, and dispensing with the shoulder ordinarily used at this point.

The strength and durability of the connection above described are further greatly increased by the metallic band B, the sockets of which correspond in size and form to the end of the spoke entering therein, closely clamping the same on all sides when in position.

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

1. The spokes C, provided with the squared tenons *c' c'*, in combination with the hub provided with the cylindrical sockets for the reception of said square tenons, as set forth.

2. The grooved hub A, having the perforations *a' a'* and metallic band B, in combination with the squared tenons *c' c'* of the spokes C, all constructed as described.

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Witnesses:

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