No. 792,725. PATENTED JUNE 20, 1905.

N. A. NEWTON.

VEHICLE WHEEL.

APPLICATION FILED JAN. 9, 1905.

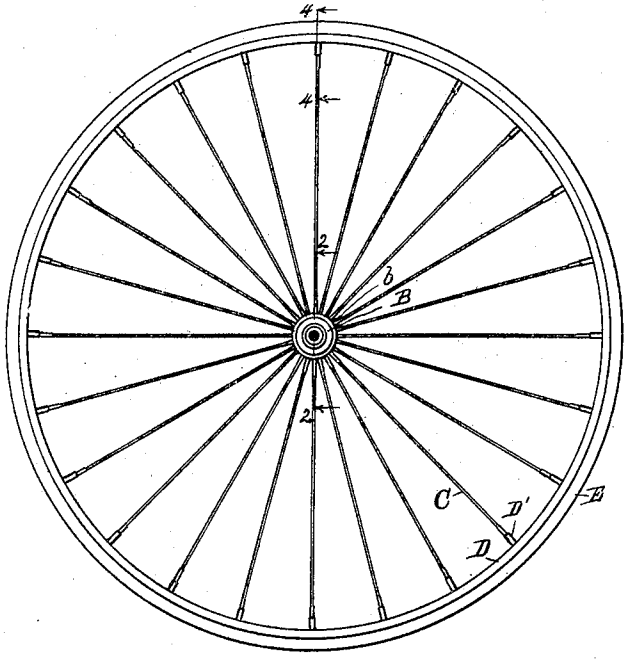

Fig. 1

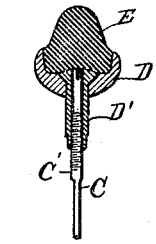

Fig. 4

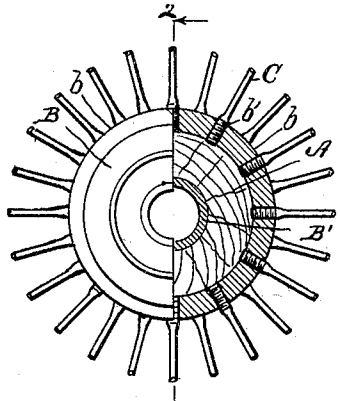

Fig. 3

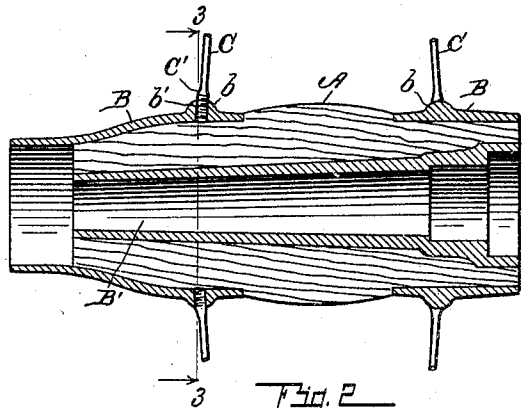

Fig. 2

Witnesses:

Ethel A. Keller

Amelia J. Alber

Inventor,

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By Chappell & Earl

Att'y.s

No. 792,725. Patented June 20, 1905.

UNITED STATES PATENT OFFICE.

NELSON A. NEWTON, OF KALAMAZOO, MICHIGAN.

VEHICLE-WHEEL.

SPECIFICATION forming part of Letters Patent No. 792,725, dated June 20, 1905.

Application filed January 9, 1905. Serial No. 240,309.

To all whom it may concern:

Be it known that I, NELSON A. NEWTON, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Vehicle-Wheels, of which the following is a specification.

This invention relates to improvements in vehicle-wheels.

It relates particularly to vehicle-wheels in which metal spokes are used.

The objects of this invention are, first, to provide an improved vehicle-wheel in which the parts are economical to produce and may be easily and quickly assembled and the tension of the wheel quickly and easily adjusted; second, to provide an improved vehicle-wheel which is strong and durable and not likely to get out of repair and one which, should this occur, may be readily repaired; third, to provide an improved vehicle-wheel having the above advantages which is neat and attractive in appearance.

Further objects and objects relating to structural details will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claim.

A structure embodying the features of my invention is clearly illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a side elevation view of my improved vehicle-wheel. Fig. 2 is an enlarged detail sectional view through the hub of my improved vehicle-wheel, taken on a line corresponding to line 2 2 of Figs. 1 and 3, showing the structural details of the hub and of the inner ends of the spokes and the manner of joining the same. Fig. 3 is a detail end elevation view, partially in section, on a line corresponding to line 3 3 of Fig. 2, showing the structural details of the hub and the manner of securing the spokes thereto. Fig. 4 is an enlarged detail sectional view taken on a line corresponding to line 4 4 of Fig. 1, showing the structural details of the rim and of the outer end of the spokes and the manner of joining them.

In the drawings the sectional views are taken looking in the direction of the little arrows at the ends of the section-lines, and similar letters of reference refer to similar parts throughout the several views.

Referring to the drawings, I provide the wood hub-center A with hub-bands B B. These hub-bands are provided with annular ribs *b*, having threaded spoke-sockets *b'* therein. The hub center A is bored to receive a suitable boxing, as B'. The spokes C are upset or otherwise enlarged to form the enlargements C' at each end. These enlargements are threaded. The threaded enlargements at the inner ends of the spokes are screwed into the socket *b'* in the hub-bands and the enlargements at the outer ends of the spokes C are threaded into nipples D'. The nipples D' are arranged through the felly or rim D from the outside. (See Fig. 4.) The enlargements C' of the spokes are of sufficient length so that they project from the sockets and nipples a short distance, so that in case of the breaking of the spoke the break will occur at a point so that a projecting stub will be left of sufficient length to be grasped by a tool for removing the same. When the spokes are of even diameter from end to end, the breaking-point is likely to be flush with the socket and the spoke is weakened by the threading, so that breakage is likely to occur from causes which do not cause breakage when the spokes are provided with the enlargement C'.

In assembling, the spokes are preferably inserted through holes in the rim with the nipples D' thereon and screwed into the sockets in the hub-bands. The tension of the spokes can then be readily adjusted by means of the nipples. After the tension of the wheel is suitably adjusted a tire, as E, is put in place.

The parts of my improved wheel are very economical to produce and it is also very quickly and easily assembled and when it is assembled it is very strong and durable. However, if a spoke should become bent or broken it is very easily and quickly removed and a new one inserted. I have illustrated

and described the same in detail in the form preferred by me. I am, however, aware that it is capable of considerable variation in structural details without departing from my invention.

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

In a suspension vehicle-wheel, the combination of the hub having a central wood portion; metal hub-bands therefor with thickened annular ribs thereon having screw-threaded spoke-sockets therein; a rim; interiorly-threaded nipples arranged through said rim; and rod-like spokes enlarged at their inner ends and threaded at each end to engage said spoke-sockets in said hub-bands and said nipples, for the purpose specified.

In witness whereof I have hereunto set my hand and seal in presence of two witnesses.

NELSON A. NEWTON. [L. S.]

Witnesses:

AMELIA J. ALBER,

OTIS A. EARL.