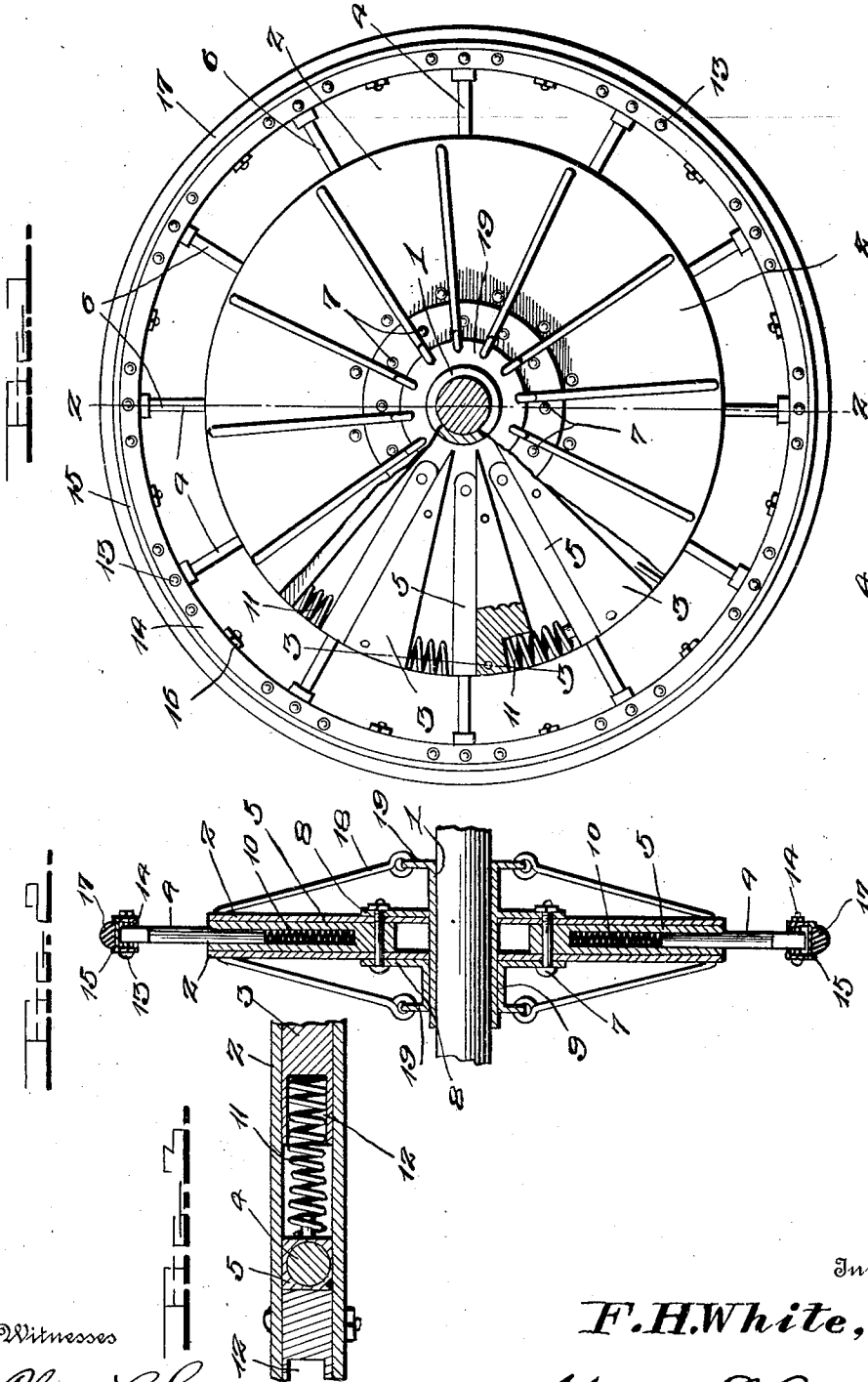


F. H. WHITE.
SPRING WHEEL.

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1,062,676.

Patented May 27, 1913.



Inventor

F. H. White,

Witnesses

Chas. L. Griesbauer, By
G. B. Norton.

Watson E. Coleman
Attorney

UNITED STATES PATENT OFFICE.

FLOYD H. WHITE, OF DUKE, OKLAHOMA.

SPRING-WHEEL.

1,062,676.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FLOYD H. WHITE, a citizen of the United States, residing at Duke, in the county of Jackson and State of Oklahoma, have invented certain new and useful Improvements in Spring-Wheels, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to new and useful improvements in vehicle wheels and more particularly to a resilient vehicle wheel, and my object is to provide a device of this character having extensible spokes thereon.

A further object of the invention resides in providing spokes, the inner sections of which are pivoted to the hub of the wheel, said sections being normally disposed in one position by means of resilient members.

A still further object resides in providing a device which is extremely simple and durable in construction, inexpensive to manufacture and one which will be very efficient in operation.

With these and other objects in view, the invention consists in the novel features of construction, combination and arrangement of parts as will be hereinafter referred to and more particularly pointed out in the specification and claims.

In the accompanying drawing forming a part of this application, Figure 1 is a side elevation of my improved wheel, partly in section; Fig. 2 is a vertical section thereof, as seen on the line 2—2 of Fig. 1; and Fig. 3 is a horizontal section thereof, as seen on line 3—3 of Fig. 1.

In describing my invention, I shall refer to the drawing in which similar reference characters designate corresponding parts throughout the several views, and in which 1 indicates a hub upon which is mounted a pair of metallic disks 2, said disks being held in spaced relation with one another by means of the spacing blocks 3, which are secured to said disks in any desired manner. These spacing blocks 3, which extend radially from the hub, have the side edges thereof tapered toward their inner ends, and disposed between the spacing blocks are a plurality of spokes 4, the inner sections 5 of which are substantially square in cross section, and have longitudinal circular channels therein to slidably receive therethrough

the outer sections 6 of the spokes. These inner sections 5 of the spokes 4 are pivoted at their inner ends upon the bolts 7, which extend completely through the spaced disks 2 and also through the annular flanges 8 formed on collar 9 and hub 1 mounted on said hub. Disposed within the inner tubular sections 5 of the spokes are the coil springs 10, the tension of which normally dispose the outer sections 6 of said spokes outwardly, and additional coil springs 11 are disposed in sockets 12 formed in one side edge of each of the spacing blocks 3, the outer ends of these latter springs 11 being engaged with the tubular sections 5 to force the same against the adjacent face of the adjacent spacing block. The outer sections 6 of the spokes 4 project for some distance beyond the outer ends of the spacing blocks and the peripheries of said disks 2, which are disposed in circular alinement, and the free ends of the same are secured by means of transversely extending bolts 13 to the channel-shaped felly 14. This felly is also held in position to support a rim 15, by means of additionally transversely extending bolts, and said rim is securely held to the felly by means of the bolts 16 extending radially through said rim and felly. A solid tire 17 is secured in the rim 15 in the usual or any preferred manner and in order to support the wheel properly on the hub so that it will be "true" throughout its revolutions, the bracing rods 18 are provided, the same extending from flanges 19 formed on the collar 9 and hub 1 and engaged at their outer ends with the disks 2 adjacent the outer peripheries thereof.

From the foregoing, it will be seen that I have provided a resilient wheel wherein radially extensible spokes are provided, the same being acted upon by means of coil springs and it will further be seen that these spokes are pivotally mounted in the wheel and are normally held in position by means of additional coil springs acting on said spokes. Thus it will be appreciated that when obstructions are met by the wheel as the same is passing over the ground, the same will yield thereto in view of the spring connections with the spokes and thus undue strain will be prevented, at the same time providing a substantial spring support for the hub.

It will still further be seen that the entire construction is simple, and durable throughout, is inexpensive to manufacture, and a wheel which will be very efficient and useful in operation.

While I have particularly described the elements most well adapted to perform the functions set forth, it is obvious that various changes in form, proportion and in the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the novel features of the invention.

Having thus described this invention, what is claimed is:—

1. A spring wheel comprising a hub, a pair of spaced disks mounted thereon, a felly, a plurality of spokes pivotally mounted at their inner ends to said hub and securely engaged at their outer ends with said felly, said spokes being formed of telescoping sections, spring members disposed within the inner sections of said spokes and acting on the outer sections thereof, spacing blocks rigidly secured between the aforesaid disks and disposed between said spokes, the one side edge of each of said blocks being provided with a socket, and a plurality of additional coil spring members carried in the sockets of said spacing blocks and engaged with the inner sections of the adjacent

spokes to normally force the latter against the adjacent spacing blocks.

2. A spring wheel comprising a hub, a pair of spaced disks mounted thereon, a felly, a plurality of spokes pivotally mounted at their inner ends to said hub and engaged at their outer ends with said felly, said spokes being formed of telescoping members, spring members disposed within the inner sections of said spokes and acting on the outer sections thereof, a plurality of spacing blocks rigidly secured between said spaced disks and arranged alternate of said spokes, the outer ends of said spacing blocks registering with the outer peripheries of said disks, and each of said blocks being provided with a socket in one side edge adjacent the outer end thereof, a plurality of coil spring members carried in the sockets of said spacing blocks and engaged with the inner sections of the adjacent spokes to normally force the latter against the adjacent spacing blocks, and bracing means between said disks and the hub of the wheel.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

FLOYD H. WHITE.

Witnesses:

B. C. ROSE,
T. B. BOBBITT.