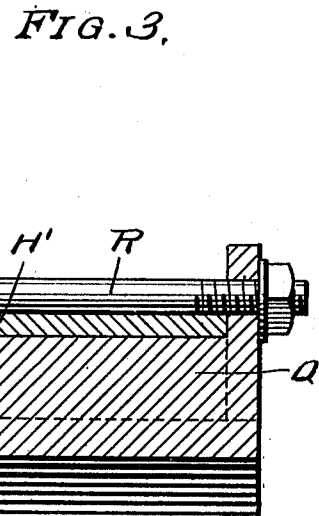
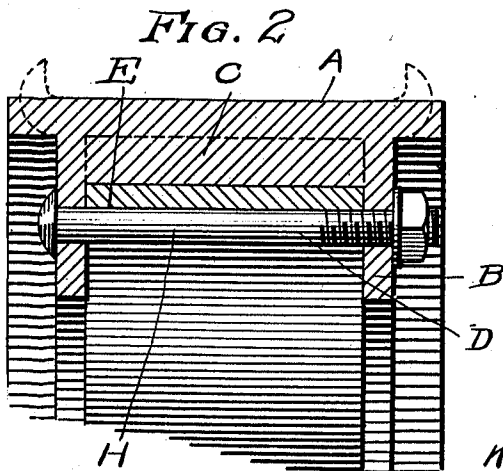
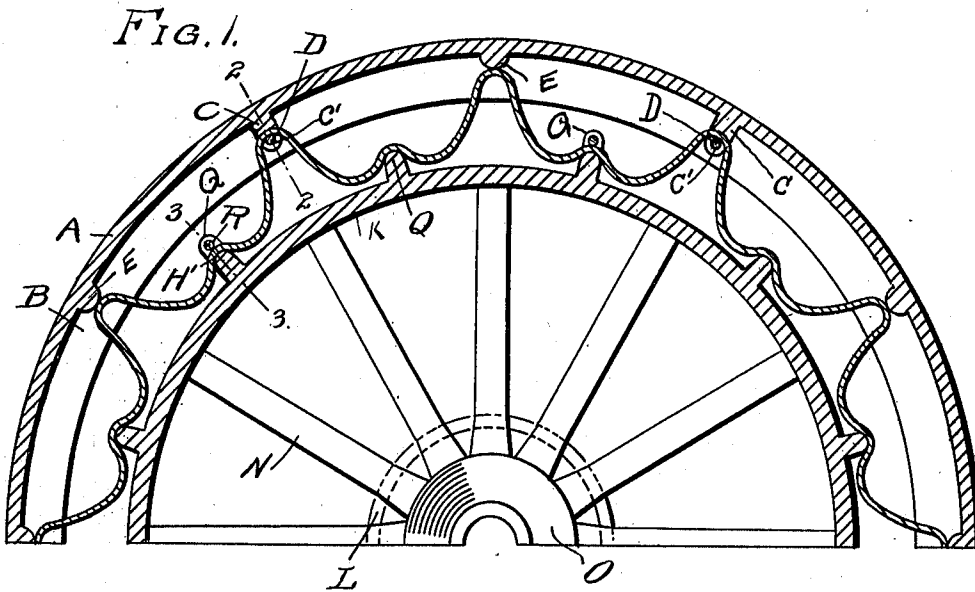


S. L. SIMPSON.
RESILIENT WHEEL.
APPLICATION FILED AUG. 13, 1910.

993,802.

Patented May 30, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

SELDEN L. SIMPSON, OF CLEVELAND, OHIO.

RESILIENT WHEEL.

993,802.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed August 13, 1910. Serial No. 576,978.

To all whom it may concern:

Be it known that I, SELDEN L. SIMPSON, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Resilient Wheels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in resilient wheels, the object in view being to produce a wheel, cast or otherwise formed of metal of two parts, and provided with an endless leaf spring so arranged that the spring and the other parts coöperating therewith are so coupled that they form a complete vehicle wheel which will absorb vibration.

My invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a longitudinal section of a portion of a wheel made in accordance with my invention. Fig. 2 is a sectional view on line 2—2 of Fig. 1, and Fig. 3 is a sectional view on line 3—3 of Fig. 1.

Reference now being had to the details of the drawings by letter, A designates a ring having flanges B thereon. Projecting from said ring A are lugs C having apertures C' for the reception of the bolts D. The portion of the integral projection of the ring A intermediate said lugs is convexed as at E and against which a curved portion of the spring H is adapted to frictionally contact. Said projections upon the ring A are formed at intervals about its entire length and against each convexed portion E a curved portion of the spring H is adapted to bear. A second ring, designated by letter K, of smaller diameter than the ring A, has spokes N fastened thereto, the inner ends of which are secured to the hub O about which a

brake drum L is formed and projecting from the circumference of the ring K are the 55 convexed lugs Q over which the curved portions H' of the spring are adapted to bear. Certain of said lugs Q have parts Q' extending beyond their convexed portions and carry the bolts R which serve to confine the 60 curved portions H' of the springs intermediate said bolts R and the convexed portions of the lugs Q.

From the foregoing, it will be noted that, when a wheel is made in accordance with the foregoing and as illustrated in the drawings, the outer ring when coming in contact with obstructions will serve to yield against the different curved portions of the endless spring, the latter yielding at its points of 70 contact with the lugs and serving to take up vibration. After the circumference of the wheel has passed the obstruction, the leaf spring will return the ring A to its normal position. 75

What I claim to be new is:—

A resilient wheel consisting of a rim with radially projecting round ended lugs upon the circumference thereof, apertured lugs upon the rim intermediate said round ended 80 lugs, bolts in the apertures of said apertured lugs, a ring having flanges upon the opposite edges thereof, round ended lugs projecting radially from the inner circumference of said ring, apertured lugs project- 85 ing from the latter intermediate said lugs thereon, all of the lugs being in staggered relation with one another, a single convoluted spring having convexed portions which engage the round ended lugs upon the inner 90 surface of the ring and concaved portions engaging the rounded ends of the lugs upon the rim, portions of the spring held to the apertured lugs upon the ring and concaved portions of the spring engaged and held by 95 the bolts in the apertures in the lugs upon the rim, the convolutions of the spring engaging the lugs upon the ring being held from lateral movement by said flanges.

In testimony whereof I hereunto affix my 100 signature in the presence of two witnesses.

SELDEN L. SIMPSON.

Witnesses:

LOUIS BAUMOEL,
MICHAEL SCHAFFER.