

No. 672,304.

Patented Apr. 16, 1901.

J. ARN.
SPRING TIRE.

(Application filed Sept. 7, 1900.)

(No Model.)

Fig. 1.

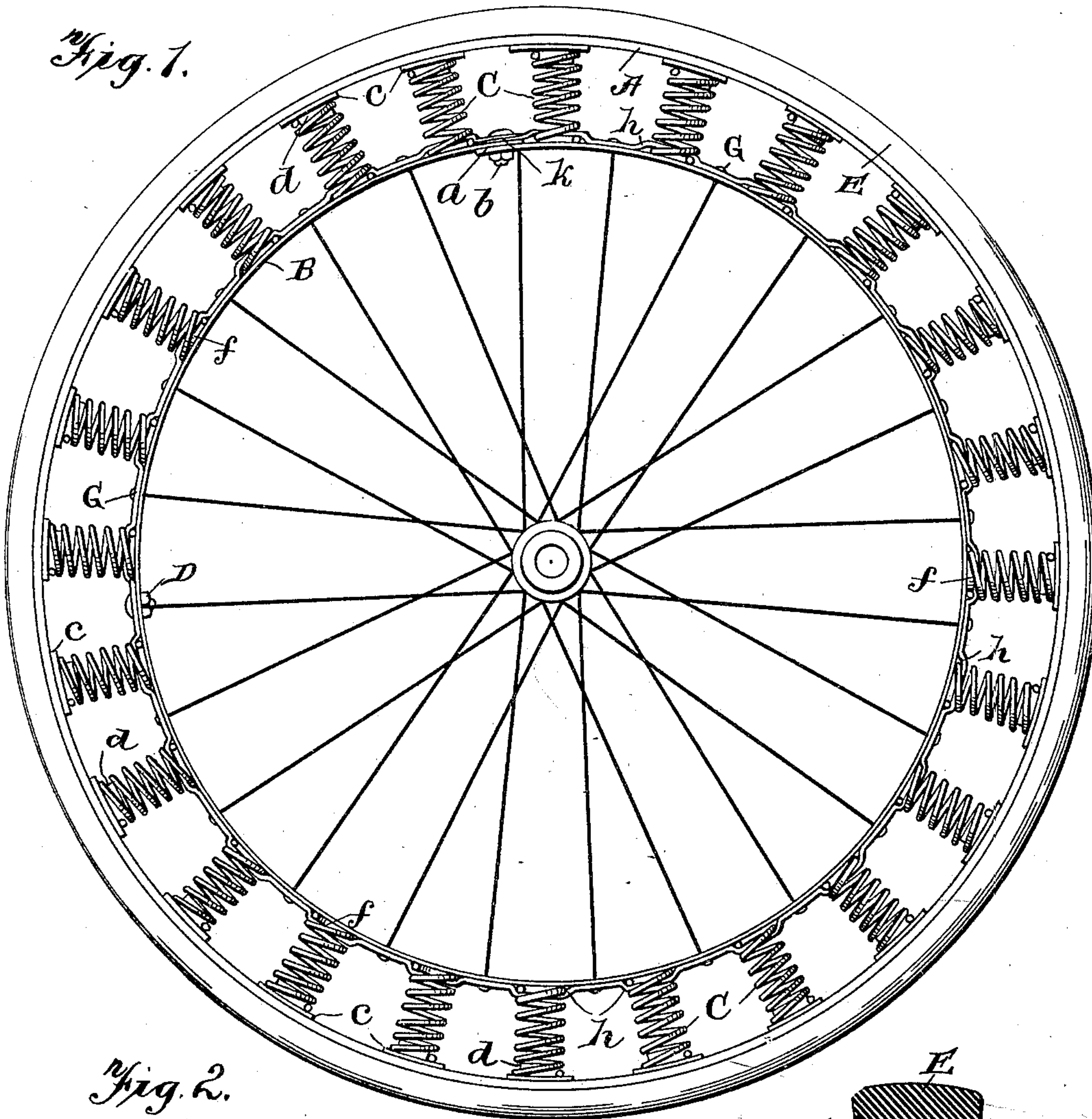


Fig. 2.

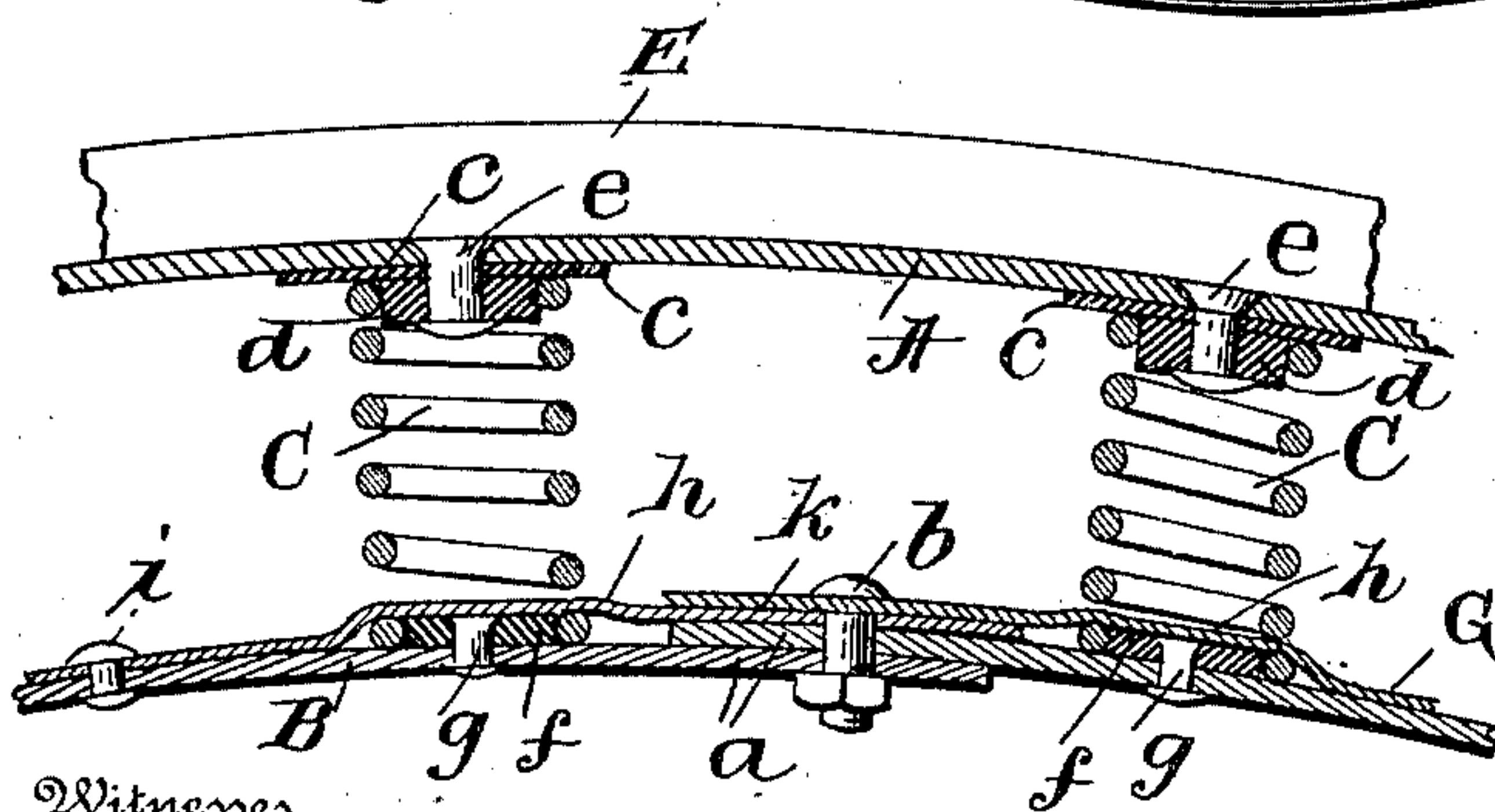
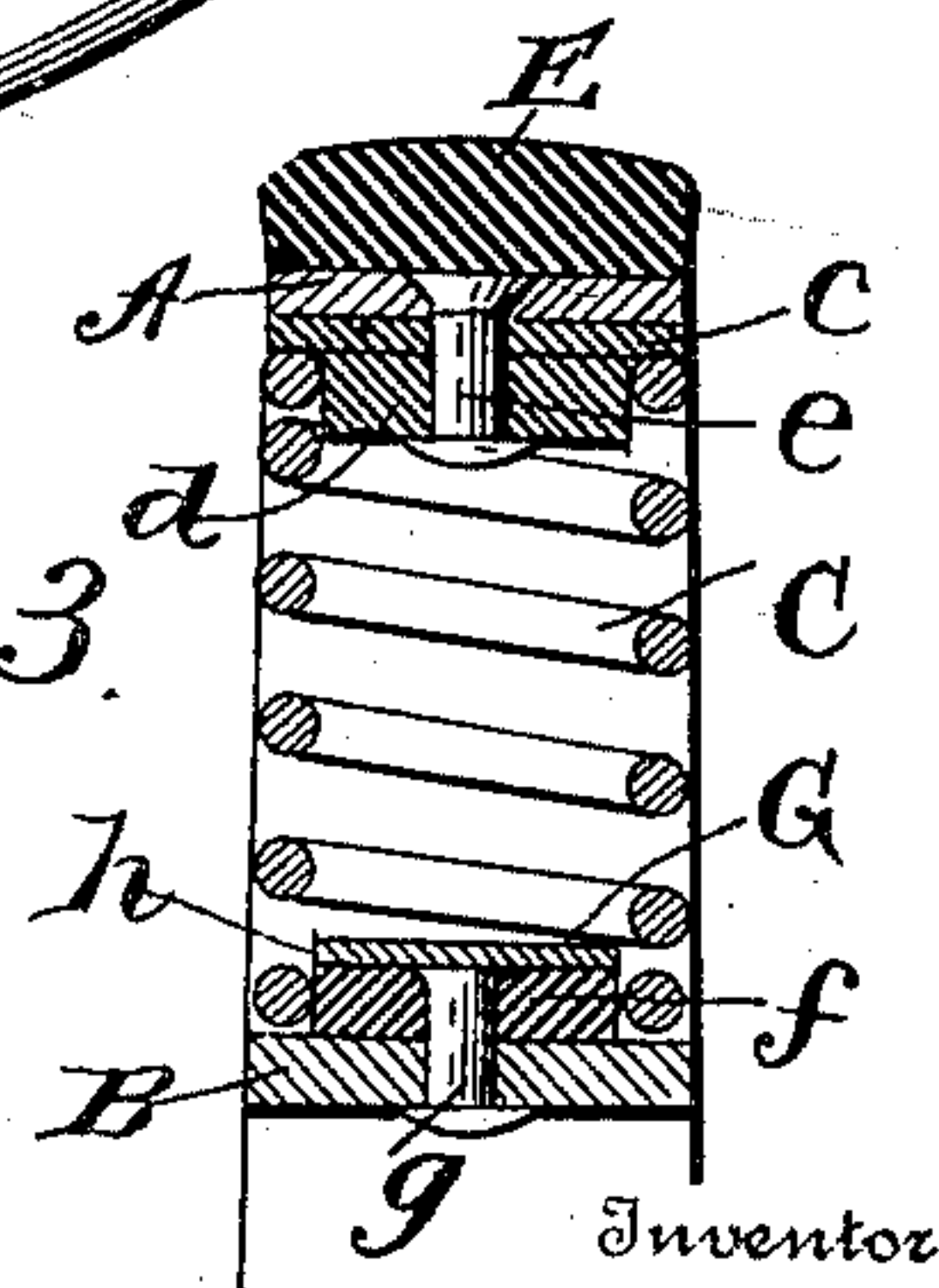


Fig. 3.



Inventor

John Arn,

Witnesses

Geo. C. Frick,

Alice H. Hoffman

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A. J. Pattison

Attorney

UNITED STATES PATENT OFFICE.

JOHN ARN, OF COLUMBUS, OHIO.

SPRING-TIRE.

SPECIFICATION forming part of Letters Patent No. 672,304, dated April 16, 1901.

Application filed September 7, 1900. Serial No. 29,323. (No model.)

To all whom it may concern:

Be it known that I, JOHN ARN, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Spring-Tires, of which the following is a specification.

My invention relates to improvements in spring-tires, and pertains to a tire which is adapted to be applied to wheels of all kinds and for all sorts of vehicles.

In the accompanying drawings, Figure 1 is a side elevation of a spring-tire embodying my invention. Fig. 2 is an enlarged sectional view through a portion of the tire. Fig. 3 is an enlarged transverse sectional view at right angles to Fig. 2 and through one side of the tire.

Referring now to the drawings, A is an outer flexible band, preferably composed of steel, and B is an inner concentric flexible steel band, the inner band having its ends *a* overlapping and adapted to receive a suitable securing bolt or screw *b*.

Situated between the two concentric flexible bands A and B are a plurality of radially-arranged spiral springs C. These spiral springs C serve to unite the two bands and to hold the outer band yielding in relation to the inner band. The inner band is adapted to be applied to the rim of a wheel of any kind and to be secured thereto through the medium of any desired number of bolts D, which pass through the said inner band and the rim of the wheel to which it is applied. The outer band will be provided with a suitable rubber tire E of any desired form and may be secured thereto in any suitable or well-known way. The inner side of the outer band is provided with the plates *c*, which are preferably composed of leather, and situated upon these plates are the leather or other similar washers *d*, which fit within the outer end of the said spiral springs. The said washers and plates are secured to the said outer band through the medium of the rivets or bolts *e*. The inner ends of the spiral springs are united to the outer side of the in-

ner band and held against lateral movement in respect thereto through the medium of the leather or other similar washers *f*, which washers are united to the inner band through the medium of rivets or bolts *g*. These washers *f* fit snugly within the inner ends of the spiral springs and serve to hold them from lateral movement in respect to the inner band.

The essential feature of my present improvement is the use of a securing-strip G, which extends around the outer side of the inner band and is united thereto at points between the inner ends of the spiral springs, as shown, through the medium of suitable rivets *i*. This securing metallic strip G is provided between the points of attachment to the inner band with the outwardly-bulged portions *h*, whereby the band is passed through the coils of the inner ends of the spiral springs and over the washers, thus serving to hold the inner end of the spiral springs in position around the said washers, and thus absolutely prevent the spiral springs from being misplaced or segregated from the inner band. The said securing-strip preferably has its ends *k* overlapping at the same point of the lapping ends of the inner band and held in position by the same bolt which holds the ends of the inner band in position, as herein illustrated.

By means of a spring-tire constructed as herein shown and described it is adapted to be attached to the rim of any wheel, and when so attached forms a reliable, durable, and firm spring-tire therefor which is simple and cheap in construction.

Preferably the metallic bands and springs will be painted or enameled any desired color.

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

A spring-tire comprising an outer flexible band, an inner concentric band, the adjacent sides of the bands provided with oppositely-projecting washers, fitting within the ends of the said spiral springs, a securing-strip passing around the outer side of the said inner

band between the coils of the inner ends of
the springs and over the washers located
therein, the said securing-strip being united
to the inner band at points between the inner
5 ends of the spiral springs, substantially as de-
scribed.

In testimony whereof I have hereunto set

my hand in the presence of two subscribing
witnesses.

JOHN ARN.

Witnesses:

HENRY H. BLEND,
PHILIPP BENSHEIMER.