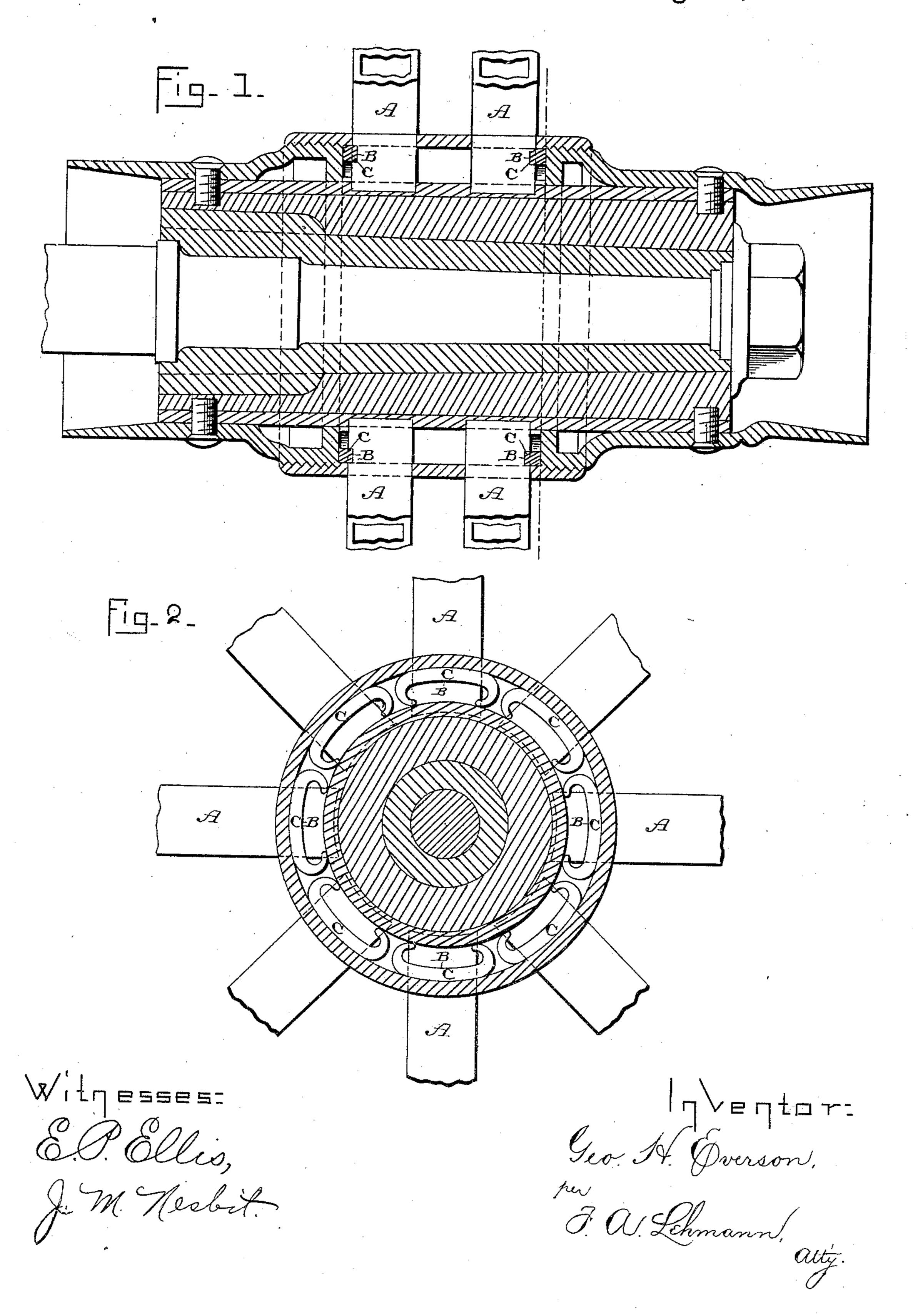
## G. H. EVERSON. METALLIC WHEEL.

No. 409,945.

Patented Aug. 27, 1889.



## United States Patent Office.

GEORGE H. EVERSON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO THE ROLLED STEEL CARRIAGE WHEEL COMPANY, OF TRENTON, NEW JERSEY.

## METALLIC WHEEL.

SPECIFICATION forming part of Letters Patent No. 409,945, dated August 27, 1889.

Application filed May 13, 1889. Serial No. 310,532. (No model.)

To all whom it may concern:

Be it known that I, George H. Everson, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in metallic wheels; and it consists in the combination of the spokes having notches made in their sides, with short bent springs, which serve both to lock the ends of the spokes inside of the hub and to give the wheel the requisite amount of elasticity, as will be more fully described hereinafter.

The object of my invention is to apply to the inner end of each of the spokes inside of the hub an elastic locking device, so that the wheel will be given a greater amount of elasticity than can be imparted by the rigid locking devices which have heretofore been employed for this purpose.

Figure 1 is a vertical longitudinal section of a hub which embodies my invention. Fig. 2 is a vertical cross-section of the same.

The construction of the hub here shown and described is the same as that which is shown in another application, which bears Serial No. 305,749, and hence need not be more fully described in this connection, because what is here shown is intended as an improvement upon that application. The inner end of each of the spokes A has a notch or recess B formed in its side just inside of the metal-

lic shell of the hub, and applied to the side of each of these spokes is a curved metallic spring C, which have their upper thicker portions to catch in the recesses B, while their bent ends rest upon the central portion of the hub, as shown. Each one of these springs C serves the double purpose of locking the spoke in position and of imparting to the hub the requisite amount of elasticity. Every spoke being provided with a spring-bearing, as here shown, the wheels are given such an 50 amount of elasticity that the danger of any of the parts breaking is greatly lessened, and a much more pleasant and elastic movement is given to the vehicle as it is moved along.

Having thus described my invention, I 55 claim—

1. The combination, with the hub and the notched metallic spokes, of separate springs, which are applied to the spokes for the purpose of securing them in position in the hub 60 and imparting to the wheel the necessary amount of elasticity, substantially as shown and described.

2. The combination, with the hub, of the notched metallic spokes A, with the separate 65 curved springs C, which catch in the notches in the sides of the spokes and have both of their ends to bear against a portion of the hub, whereby each spring is made to act as a spring to its spoke and as a means of holding 70 its spoke in position, substantially as described.

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

GEORGE H. EVERSON.

Witnesses: C. A. Cubbage,

WINTHROP DEAN.