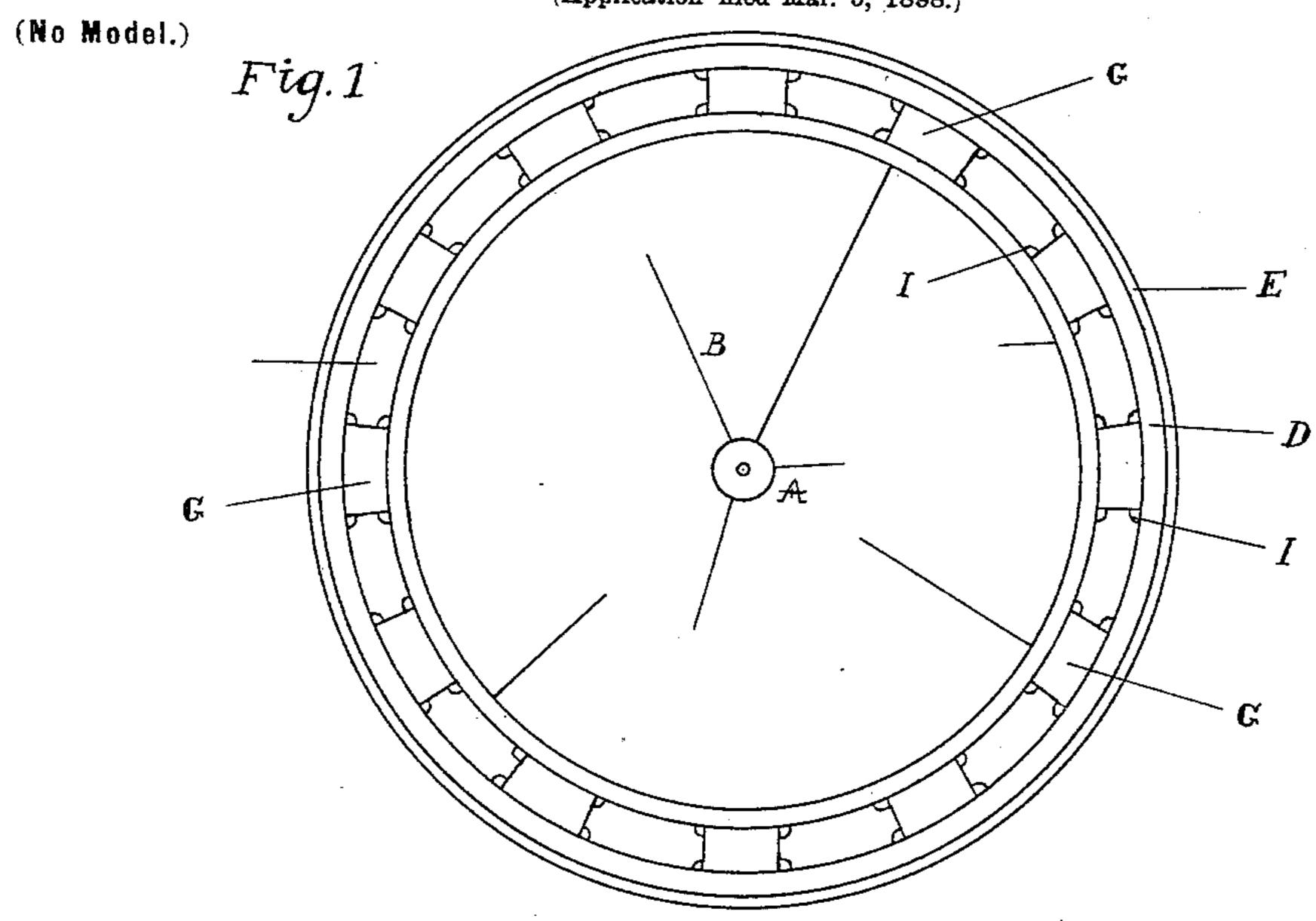
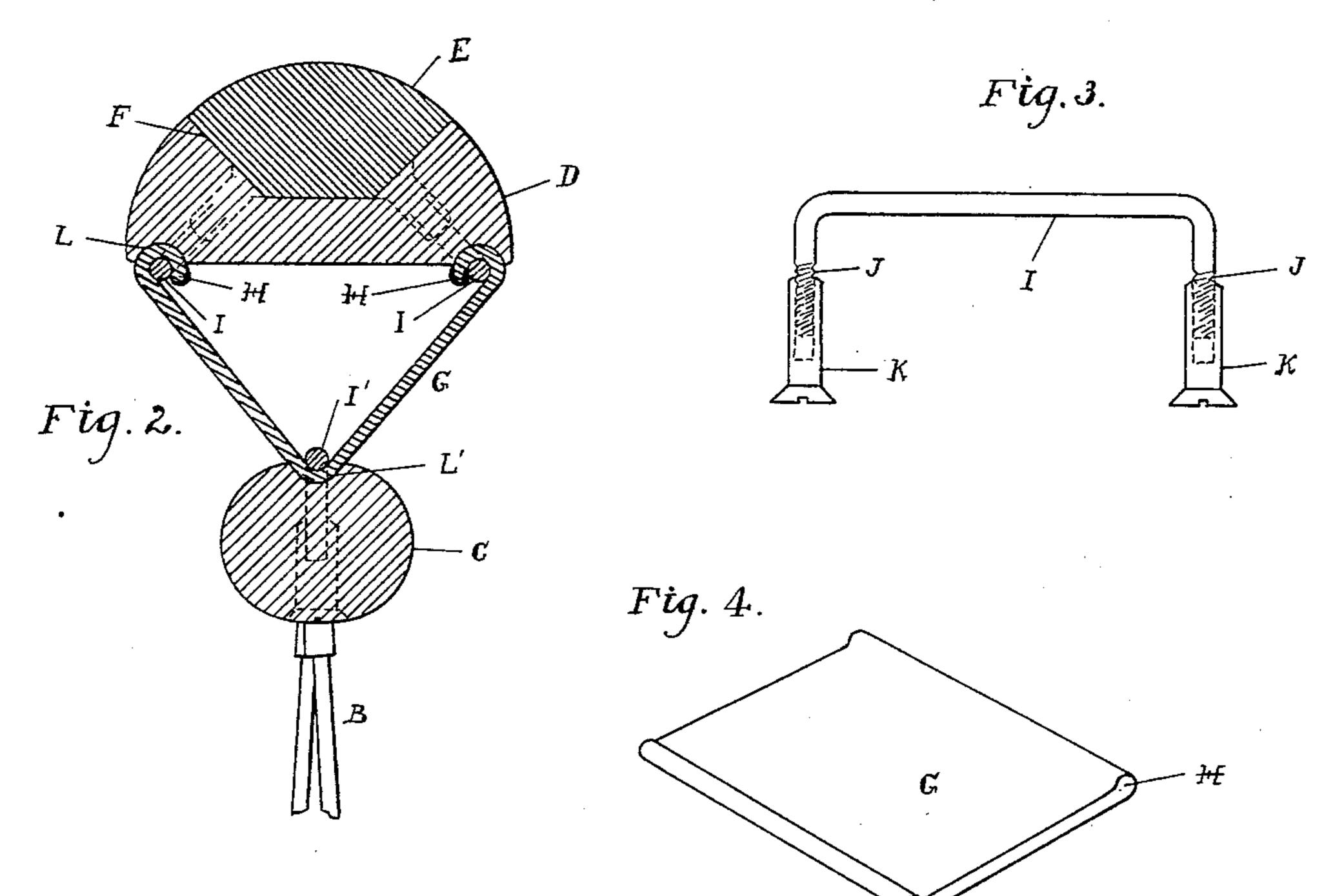
J. A. HEANY. WHEEL FOR VEHICLES.

(Application filed Mar. 5, 1898.)





WITNESSES:

M. C. Roberts. Geo. G. Roberto John allen Weary

BY

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## United States Patent Office.

JOHN ALLEN HEANY, OF PHILADELPHIA, PENNSYLVANIA.

## WHEEL FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 616,463, dated December 27, 1898.

Application filed March 5, 1898. Serial No. 672,758. (No model.)

To all whom it may concern:

Be it known that I, John Allen Heany, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Wheels for Vehicles, of which the following is a description, reference being had to the accompanying drawings, making part hereof.

The nature and object of my invention will to appear from the following description and

claims.

In the drawings, Figure 1 is a side elevation of a wheel containing my improvement; Fig. 2, a cross-sectional view of my stiff felly and stiff inner rim, showing also my looped-up open bands for holding them together and metallic U-shaped loops for holding the bands in place; Fig. 3, a detached elevation of one of my U-shaped metallic loops, showing bicycle-screw attachments for securing them; Fig. 4, a perspective view of one of my rectangular bands, the enlargement of two of its opposite edges being shown.

A is the hub; B, the radiating spokes; C, the stiff inner rim; D, the felly. Both rim and felly are stiff and are constructed of wood, metal, or other suitable material.

E is the rubber tire, sprung into a groove F, sunk into the outer surface of felly D. The sides forming this groove F flare outwardly to permit easy adjustment of the tire.

G G are rectangular elastic bands of indiarubber, two of the opposite edges of which 35 are enlarged, as at H H, Fig. 4.

II' are metallic U-shaped loops, here shown of wire and provided with screw-threaded

ends J J.

KKare "bicycle-screws" engaging over the 40 screw-threaded ends of loops II.

L L are grooves in the inner face of felly D, and L' one in the outer face of rim C.

In constructing a wheel with my device I first secure the bands by the two enlarged edges in place against the felly, the loops I 45 being compressed by screws K, forcing the bands inside their enlarged edges into grooves L L. Loops I' are now applied and the middle of each band (longitudinally of rim C) is thus forced into groove L'. The bands G G 50 are thus tightened up at a desired tension, and the middle or inner rim is held suspended concentrically within the felly D. If any one of these bands G becomes detached or broken or lost, it is a simple matter to reattach or 55 replace it, and can be done in a few minutes.

It will be observed that the bands G are open flat sheets of rubber. Screws K are practically elongated nuts. To the skilled mechanic various means to secure these bands 60

G in place will suggest themselves.

What I claim as new is—
1. In a wheel for vehicles, the combination of hub A; spokes B; inner rim C; felly D; elastic rubber bands G G, secured between 65 said felly and rim; screw-threaded loops I and nuts K, all arranged and operating sub-

stantially as described.

2. In a wheel for vehicles, the combination of hub A; spokes B; inner rim C; felly D; 70 elastic rubber bands G G, two of the opposite edges of which are provided with enlargements H H; said bands being secured between said felly and rim, screw-threaded loops I and nuts K, all arranged and oper-75 ated substantially as described.

JOHN ALLEN HEANY.

Witnesses:

WM. R. HELLYER, ANDREW BROGAN.