

W. W. RILEY.

CARS FOR ELEVATED RAILWAYS.

No. 181,596.

Patented Aug. 29, 1876.

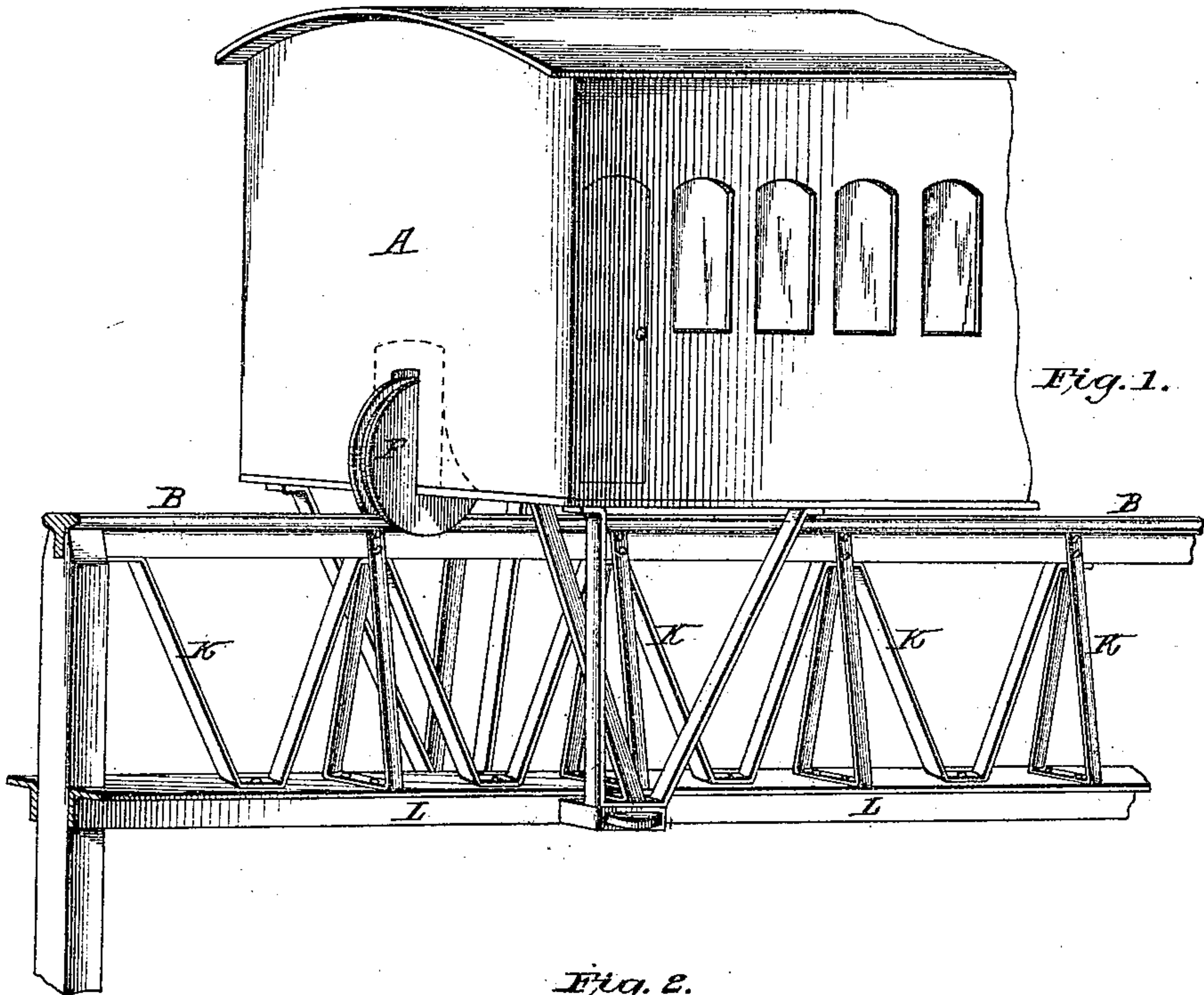


Fig. 1.

Fig. 2.

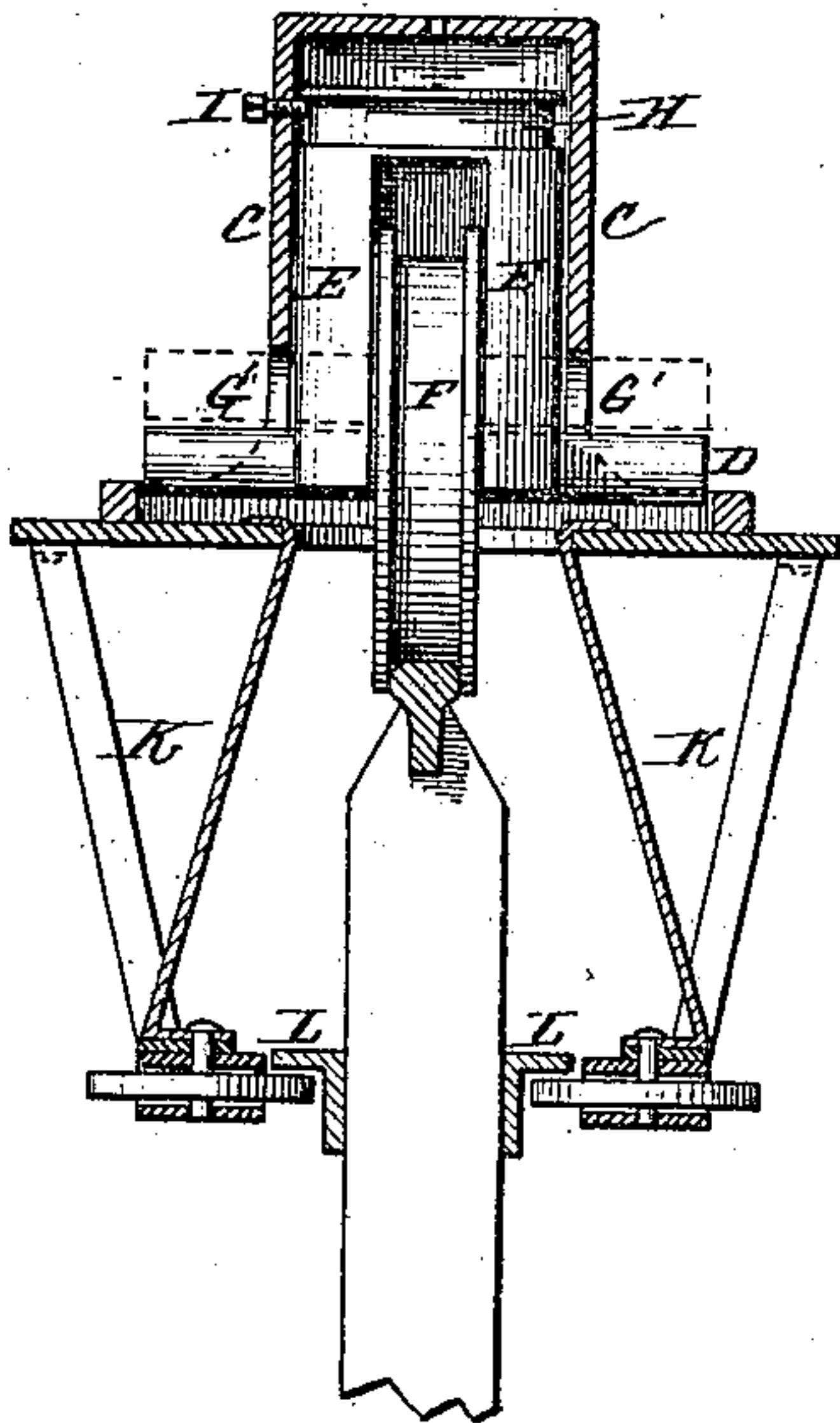
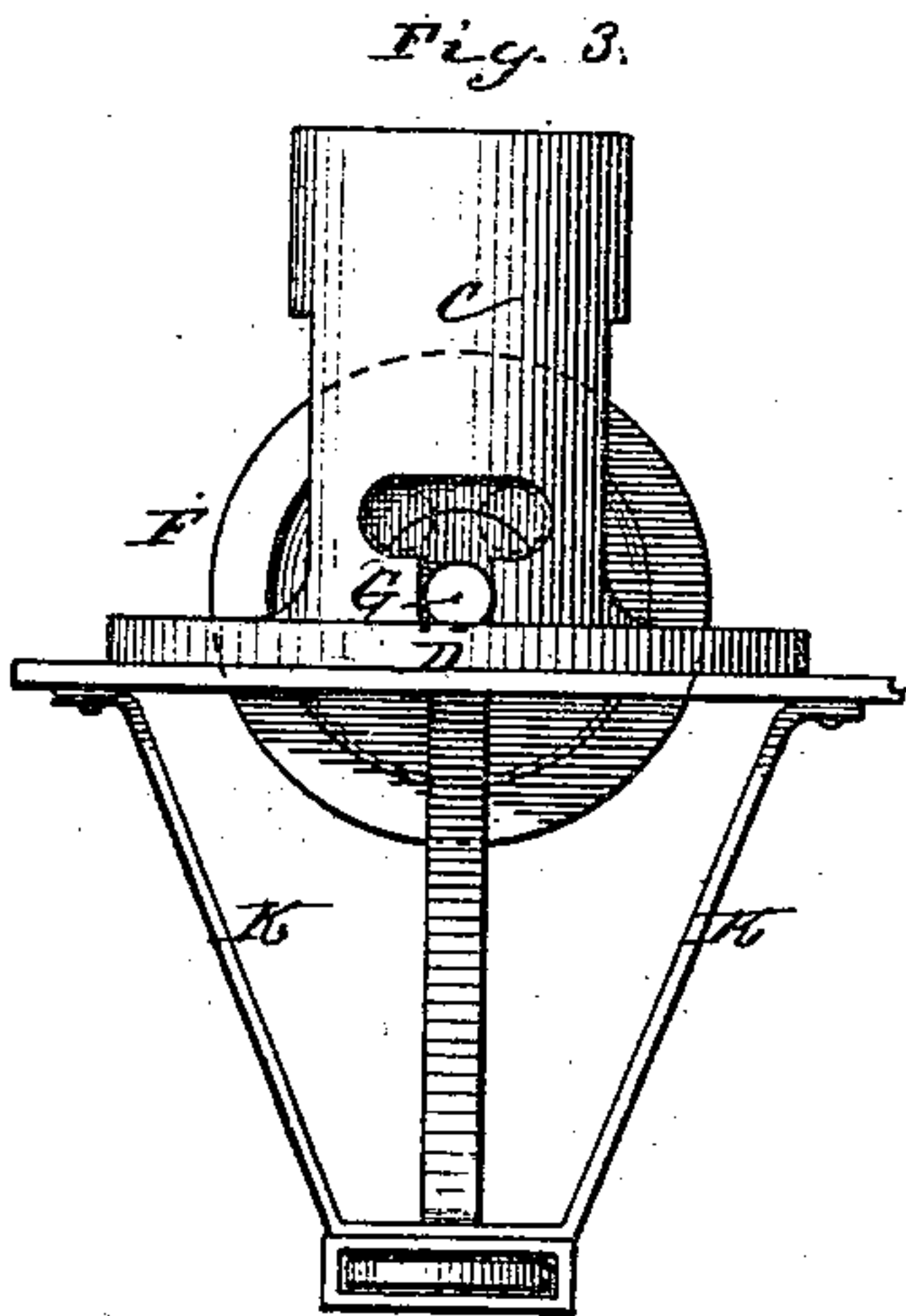
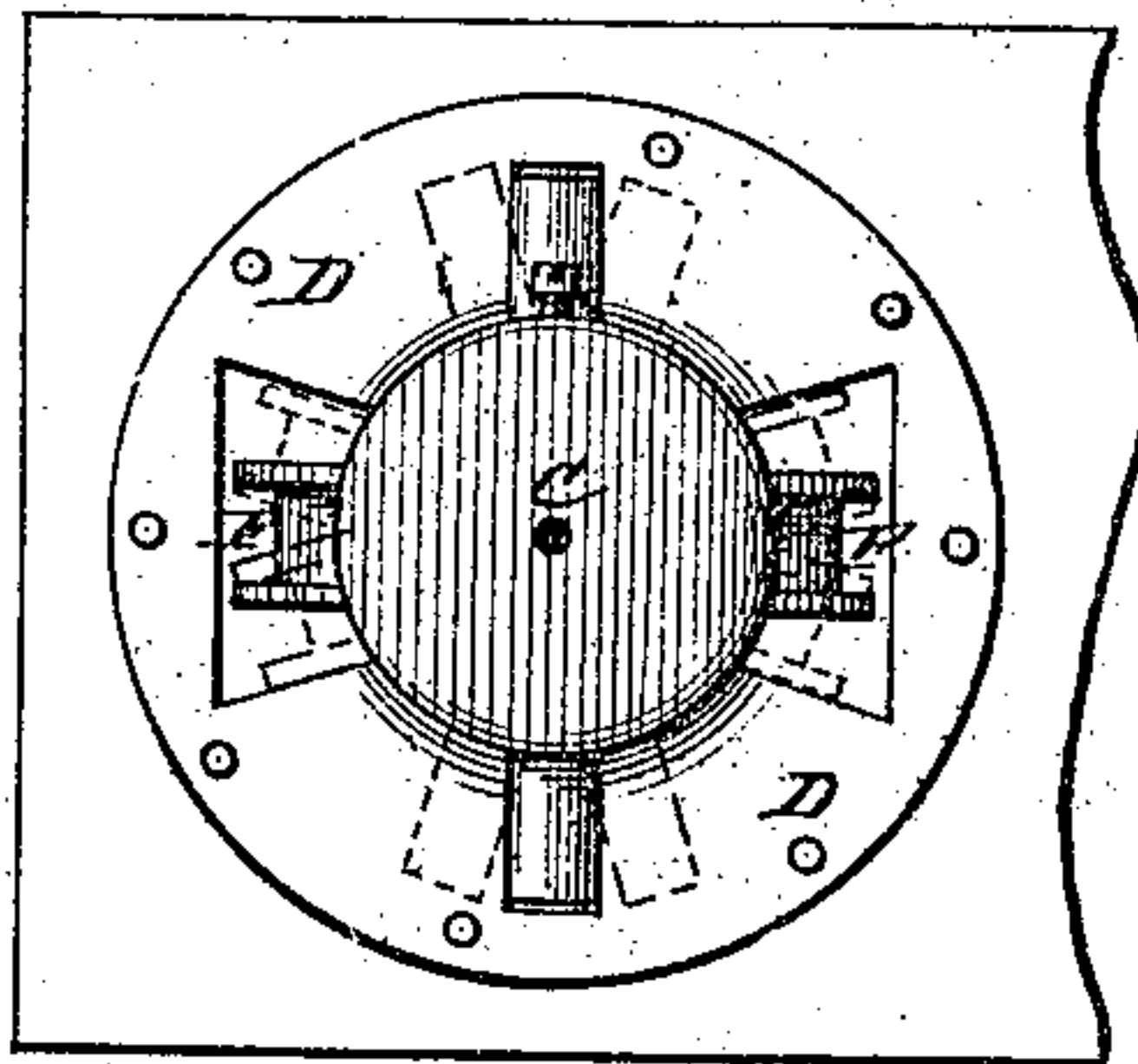


Fig. 4.



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# UNITED STATES PATENT OFFICE.

W. WILLSHIRE RILEY, OF NEW YORK, N. Y.

## IMPROVEMENT IN CARS FOR ELEVATED RAILWAYS.

Specification forming part of Letters Patent No. **181,596**, dated August 29, 1876; application filed July 12, 1875.

*To all whom it may concern:*

Be it known that I, WILLIAM WILLSHIRE RILEY, of New York, in the county of New York and State of New York, have invented certain Improvements in Cars for Elevated Railways, of which the following is a specification:

This invention relates to that class of cars which are supported upon a single row of wheels adapted to run on a single track.

The object of my invention is to construct a car for a single-track elevated railroad, whereby the same is rendered perfectly safe, and can traverse tracks located in narrow streets, and along the sides of precipitous hills or mountains, being peculiarly adapted to the turning of short curves.

My invention consists in mounting the wheels in swiveled bearings capable of a slight motion in suitable housings, secured to the upper side of the bottom of the car, above suitable slots, through which the wheels project, in order to adapt the car to turning short curves, as hereinafter more fully set forth.

In the drawing, Figure 1 represents a perspective view, showing my improved car upon the track. Fig. 2 shows a sectional view through the swiveled bearing, housing, and bottom of the car; Fig. 3, an elevation of the wheel and housing and a portion of the bottom of the car; and Fig. 4, a top view of the wheel and housing.

The letter A represents the body of the car, with slots or openings at each end midway between the two sides, for the reception of the central wheels, which run on the single elevated track B. C represents a housing, consisting of a metallic cylinder, slotted on opposite sides, the slot being of sufficient width to allow of the proper play of the wheels therein. Said housing is provided with a base, D, by means of which it may be attached to the bottom of the car immediately over the slotted end in the same. E represents a cylindrical metallic block, slotted at its lower end for a suitable distance to allow the wheel F to be mounted therein on the journals G, which have their bearings in the lower part of the block E, which sets in the housing C, and is capable

of a slight rotation therein. One of the housings C is provided with slots or openings G' on opposite sides, through which the journal or axle of the wheel passes, said slots being of sufficient length to allow of the proper play as the block in which they have their bearings rotates. The ends of the journal are provided with cranks, to which the pitman of the driving-engine is attached in order to propel the car. The journals of the other wheel are formed flush with the exterior of the cylindrical block, and the slots or openings in the housing for said journal are dispensed with. The upper ends of the cylindrical blocks are provided with an annular recess, H, into which the end of a set-screw, I, projects, for the purpose of securing the block within the housing. The letter K represents a series of depending braces or hangers, secured to the bottom of the cars, in the lower ends of which are mounted the guide-wheels, which travel on each side of the flanged guide-rail L below the rail B. These wheels are set under the flanges on the rail L, and serve to retain the train upon the railway.

As thus constructed the car is peculiarly adapted to travel upon roads having sharp curves, as the wheels, being mounted in swiveled supports, have sufficient play to adapt themselves to the curves, however short.

What I claim, and desire to secure by Letters Patent, is—

1. In a car for elevated railways, the central grooved wheels mounted in swiveled bearings, substantially as described.

2. In combination with the housings, slotted as described, the cylindrical blocks, forming the swiveled bearings for the wheels, substantially as described.

3. The combination of the housings, slotted, as described, to allow of the play of the car-axes, and the cylindrical swiveled block in which said axes are journaled, substantially as set forth.

W. WILLSHIRE RILEY.

Witnesses:

CHAS. J. LOWREY,  
CHAS. L. SNOW.