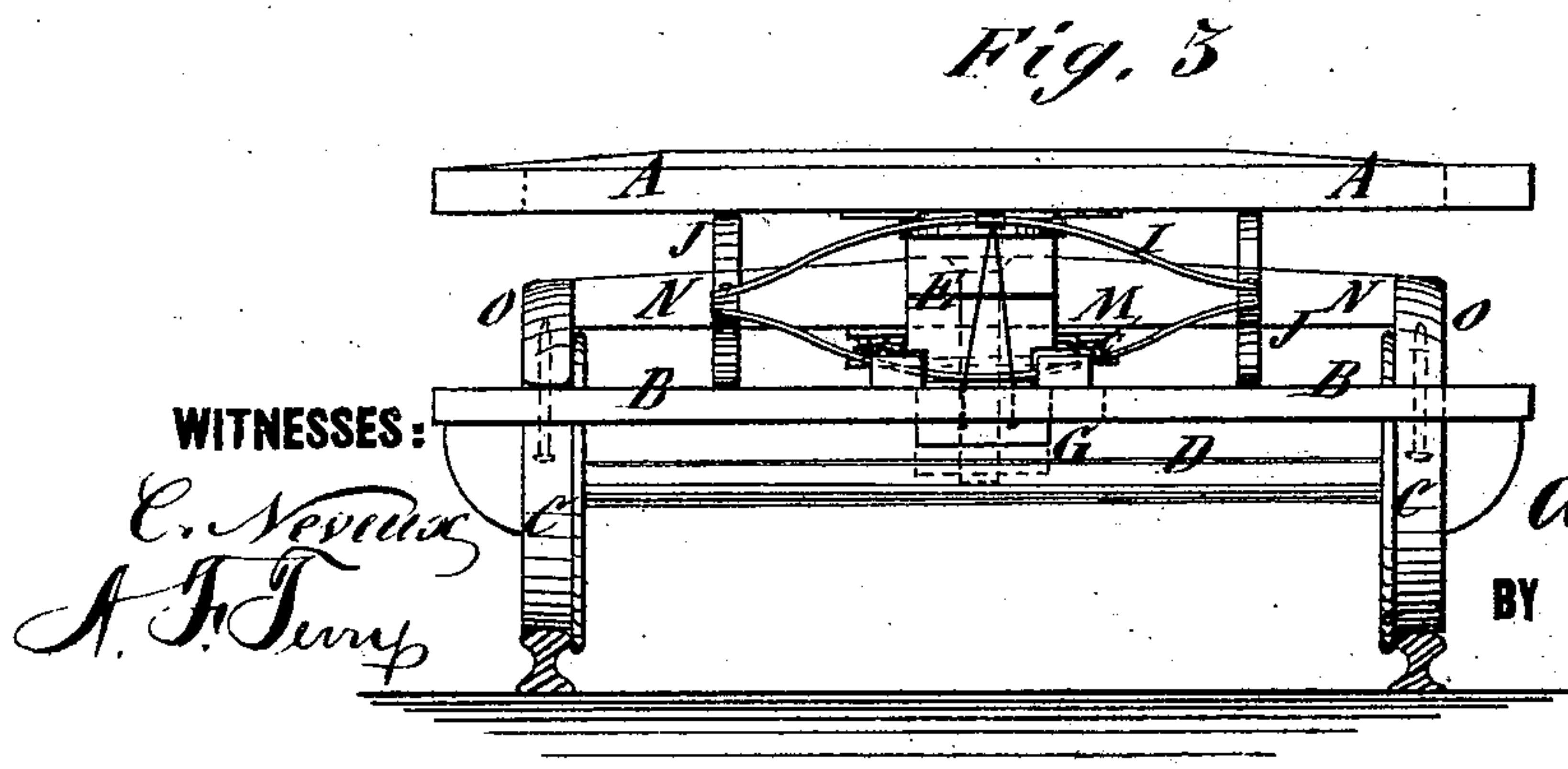
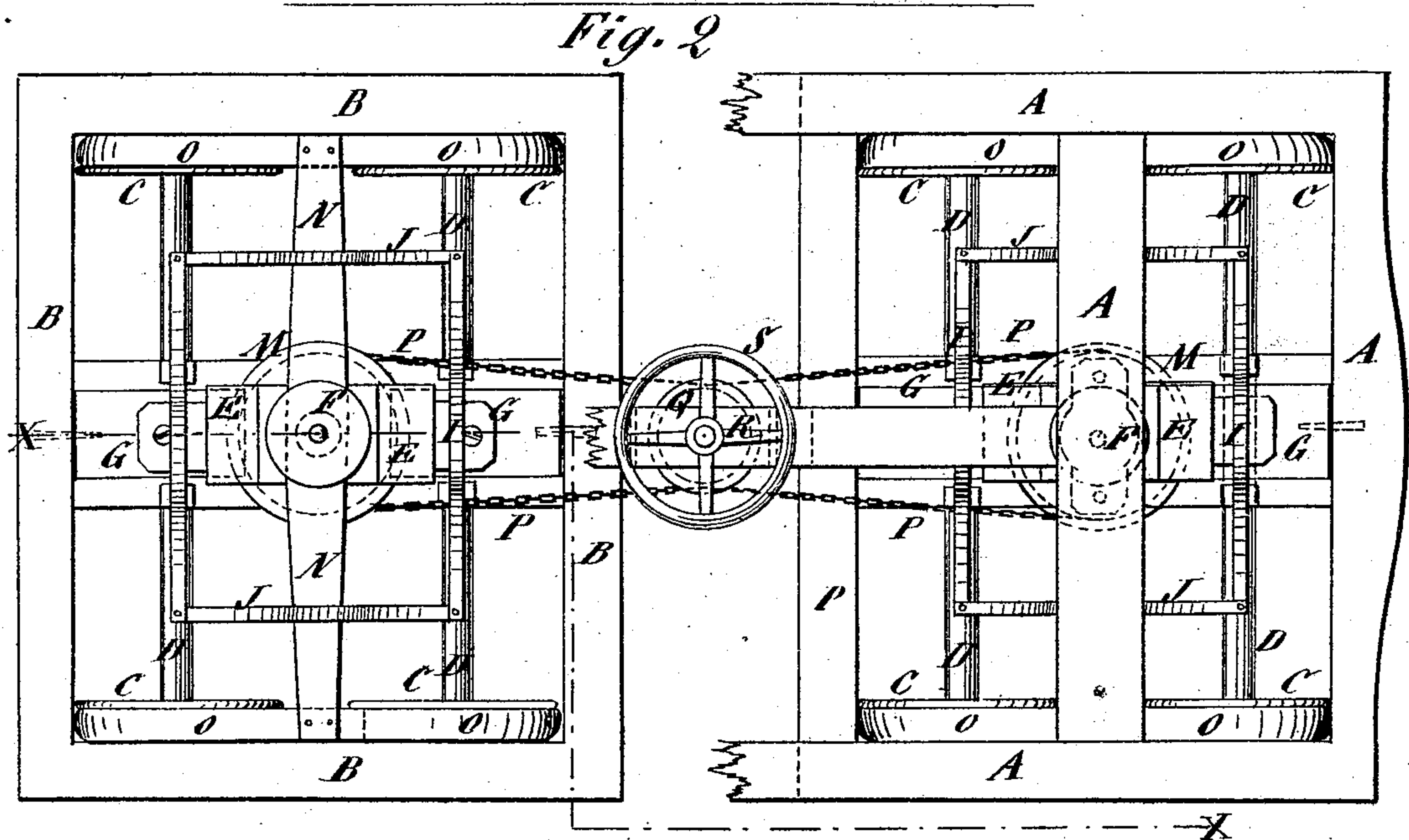
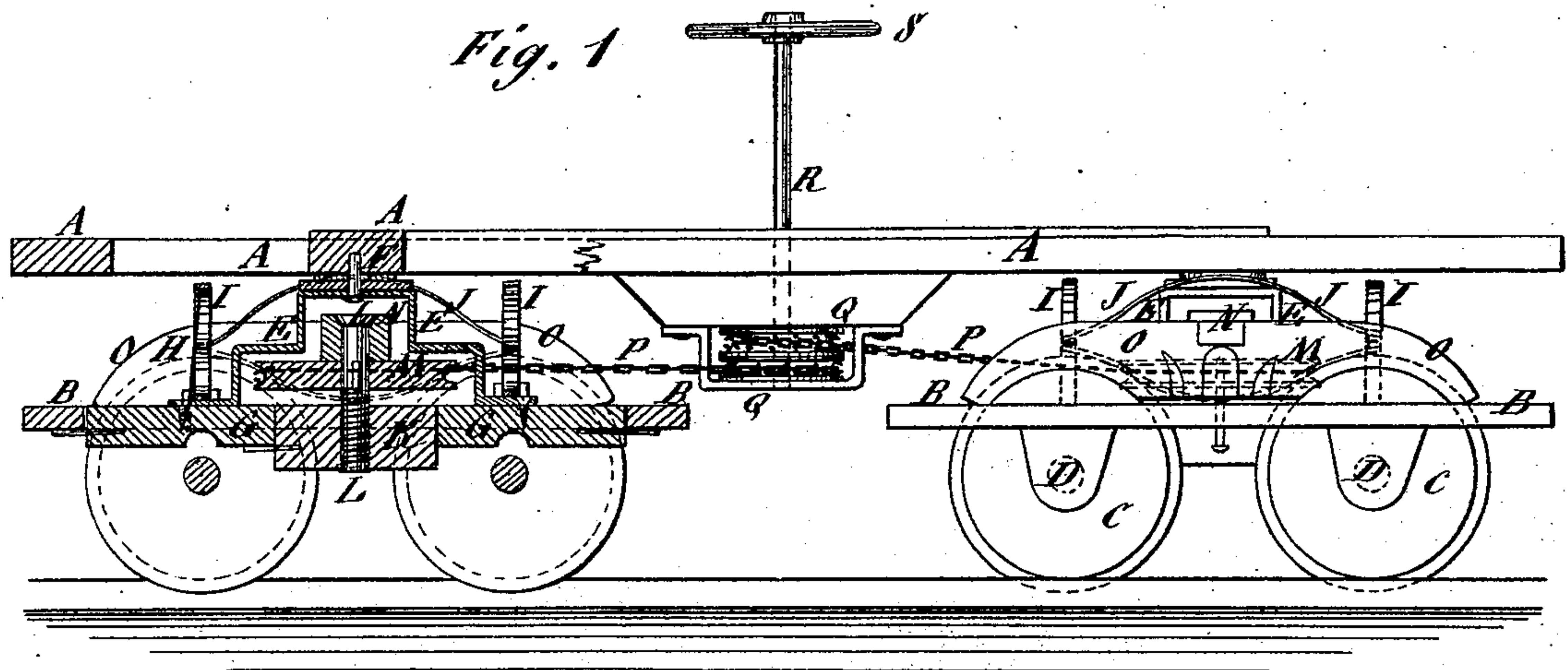


A. J. CULBERTSON.

Car-Spring.

No. 159,802.

Patented Feb. 16, 1875.



# UNITED STATES PATENT OFFICE

ANDREW JACKSON CULBERTSON, OF SAN ANDREAS, CALIFORNIA.

## IMPROVEMENT IN CAR-SPRINGS.

Specification forming part of Letters Patent No. **159,802**, dated February 16, 1875; application filed November 7, 1874.

*To all whom it may concern:*

Be it known that I, ANDREW J. CULBERTSON, of San Andreas, in the county of Calaveras and State of California, have invented a new and useful Improvement in Car-Brakes, of which the following is a specification:

Figure 1 is a side view of a railroad-car to which my improvement has been applied, partly in section through the line *x x*, Fig. 2. Fig. 2 is a top view of the same, part of the body-frame being broken away. Fig. 3 is an end view of the same.

Similar letters of reference indicate corresponding parts.

The invention will first be fully described, and then pointed out in the claim.

A represents the body-frame of a car. B are the truck-frames. C are the wheels, and D are the axles. E are metallic bars, bent as shown in Fig. 1, and the centers of which are connected with the body-frame A by kingbolts F. The ends of the bars or plates E are attached to blocks G, which are placed in re-

cesses in the front and rear middle parts of the truck-frames B. To the blocks G are attached the lower ends of the rods H, the upper ends of which are attached to the upper parts of the springs I. The lower parts of the springs I rest upon blocks or seats attached to or formed upon the truck-frames B. To the ends of the cross-springs I are attached the ends of the longitudinal springs J, which are interposed between cross-bars of the frame A and the truck-frames B, and greatly diminish the rocking of the car-body.

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

The combination, with frame A, of the plates E, bolt F, blocks G, rods H, and springs I J, to support the load, all as set forth.

ANDREW JACKSON CULBERTSON.

Witnesses:

WM. O. SWENSON,

O. BADER,

H. G. ALLEN.