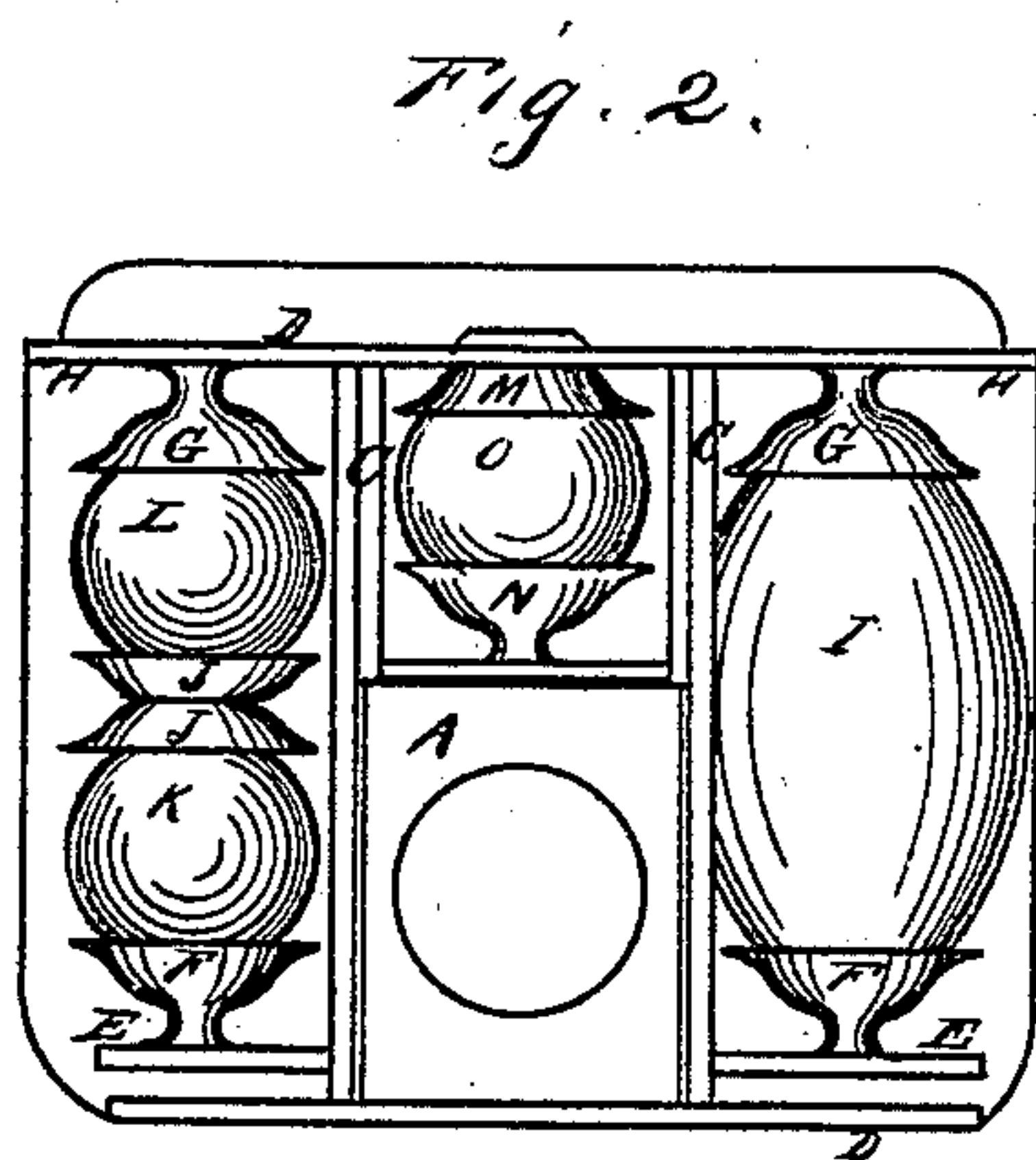
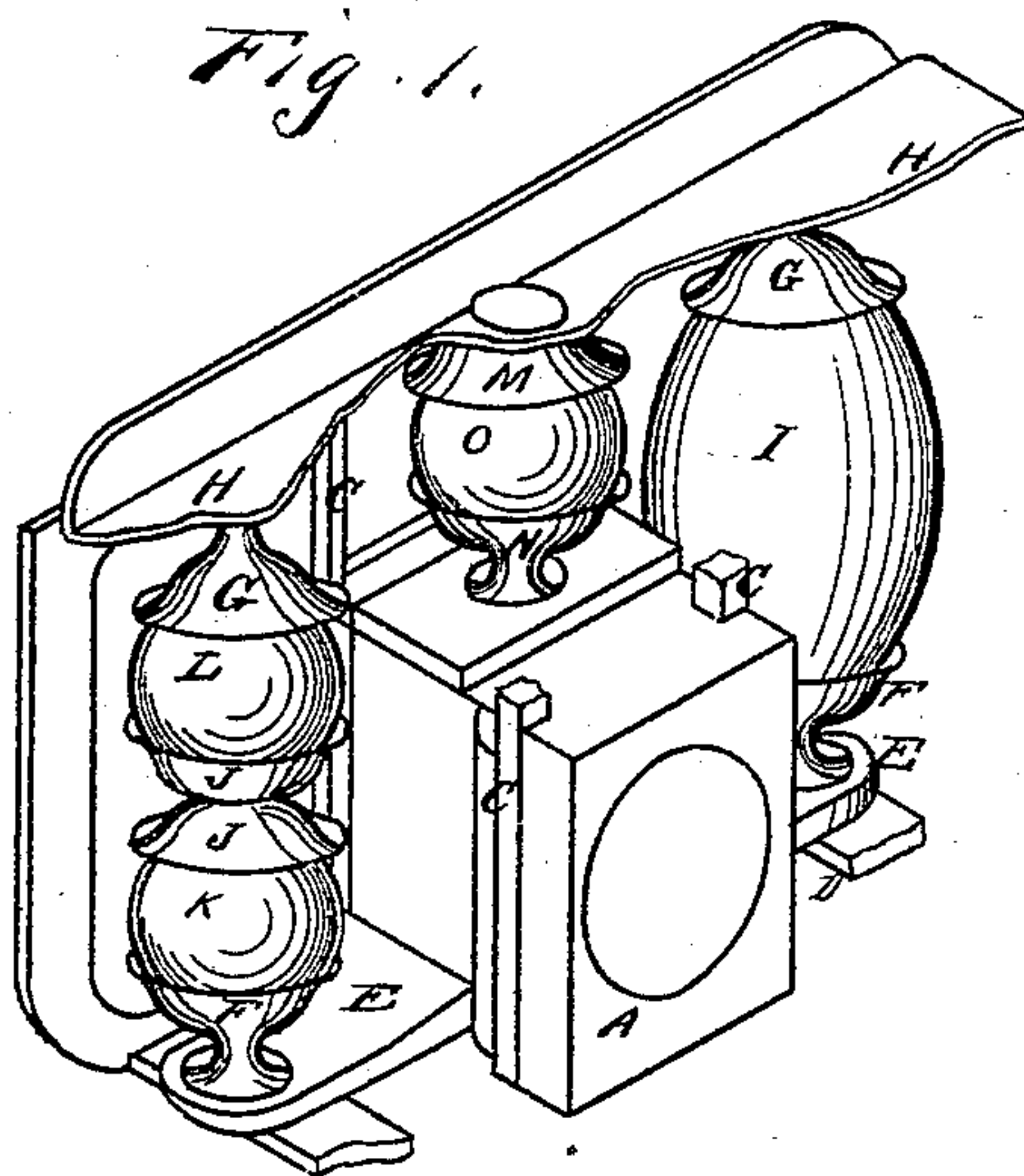


E. P. McCARTHY.
Carriage-Springs.

No. 148,618.

Patented March 17, 1874.



Witnesses
John L. Boone
J. M. Richardson

Edmond P. McCarthy
Per Sewey & Co.
Attys

UNITED STATES PATENT OFFICE.

EDMOND P. McCARTHY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. 148,618, dated March 17, 1874; application filed September 11, 1873.

To all whom it may concern:

Be it known that I, EDMOND P. McCARTHY, of San Francisco city and county, State of California, have invented an Improved Spring for Railway-Cars and Vehicles; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvement without further invention or experiment.

My invention relates to an improved spring-bearing for journal-boxes, and it is more especially applicable to railway-cars, to which I have shown it as adapted in this case. It consists in the employment of a series of double cups, within which are placed spherical or elliptical rubber or other elastic cushions, which are so combined and arranged that they receive all the pressure and also relieve the carriage and running-gear from any undue strain from shocks.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view with the front of the pedestal removed. Fig. 2 is a side elevation of the pedestal, showing the end of the strap.

A is the box, within which the journal B of the axle turns. This box moves up and down between the guides C C of the pedestal-frame D, this pedestal being secured to the carriage. A spring-bearing strap passes over the box A, and is provided with stout plates or lugs E, which project opposite the lower part of the box A at each side, and upon these plates are secured cups F. Similar cups G are secured directly above these cups, and in an inverted position beneath the upper plate H of the pedestal D.

If it is desired to use my elliptical cushion I, it can be placed within or between these two cups with its central guiding-rod secured through their centers; but if it be found more desirable to employ spherical cushions, I employ a double cup, J, between the cups F and G, one cup of which opens upward, while the other opens downward. The spherical cush-

ions K and L are inserted so as to be held between the cups F J and J G, respectively.

By employing this form of cushion I am enabled, first, to overcome the tendency of the cushions to crowd out to one side when under pressure; and, secondly, by their spherical shape to secure an evenness of wear upon all sides, as the cushions can be turned about by relieving the weight of the car, and thus perpetually present new surfaces to the cups.

When the carriage is very heavily loaded, it has a tendency to compress the springs so much that any sudden shock will force the journal-box up against the pedestal and break some portion, or otherwise endanger the safety of the structure. To obviate this, I secure a pair of cups, M and N, one upon the top of the spring-bearing strap above the box A, and the other beneath the top H of the pedestal, as before described, for the other cups, and place a spherical or other shaped cushion, O, between these cups. This cushion, when employed in connection with the others, serves to receive any sudden shock, and by its elasticity prevent its being communicated too suddenly to the more rigid parts of the carriage.

I make no claim in this application to the elastic cushions K, L, or I, these cushions being in themselves not the invention claimed.

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

1. The series of cups F, G, and J, in combination with the elastic cushions K and L, all constructed and applied to a car-pedestal, to operate substantially as and for the purpose described.

2. The elastic cushion O and cups M N between the box A and plate H, in combination with the elastic cushions K L and cups G J F applied to a car-pedestal, substantially as and for the purpose set forth.

In witness whereof I hereunto set my hand and seal.

EDMOND P. McCARTHY. [L. S.]

Witnesses:

JOHN L. BOONE,

C. M. RICHARDSON.