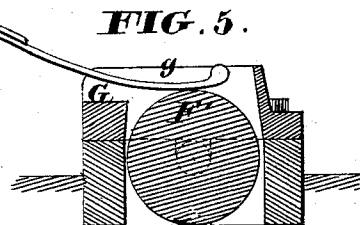
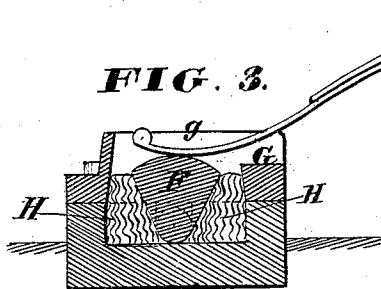
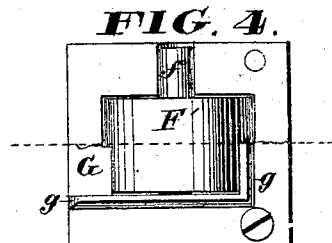
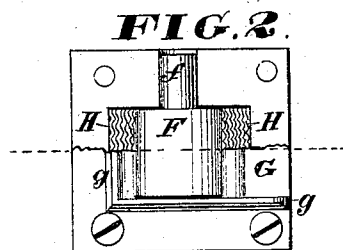
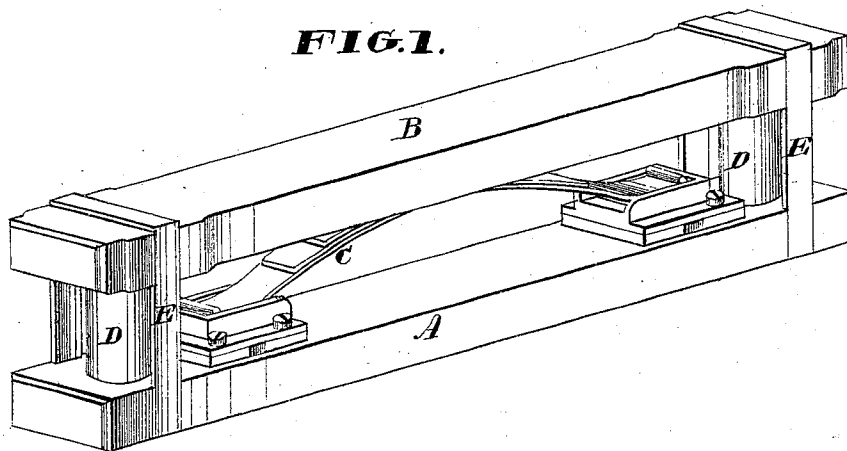


T. R. TIMBY.
Springs for Vehicles.

No. 136,284.

Patented Feb. 25, 1873.



WITNESSES:

*Jas. L. Cwin
 Walter Allen*

INVENTOR:

*Theodore R. Timby,
 By Knight & Co. Attorneys*

UNITED STATES PATENT OFFICE.

THEODORE R. TIMBY, OF TARRYTOWN, NEW YORK.

IMPROVEMENT IN SPRINGS FOR VEHICLES.

Specification forming part of Letters Patent No. 136,284, dated February 25, 1873.

To all whom it may concern:

Be it known that I, THEODORE R. TIMBY, of Tarrytown, in the county of Westchester and State of New York, have invented an Improved Rest or Bearing for Springs, of which the following is a specification:

Nature and Objects of the Invention.

My invention relates to bearings for the ends of semi-elliptic or any other form of springs whose ends receive a horizontal sliding movement on their bearings when the spring is compressed. The objects of my invention are to reduce frictional resistance to the movements of the spring and to guide the ends thereof, so as to keep them in proper position while permitting their free movement. To accomplish these objects I rest the ends of the spring on blocks rocking on suitable pivots, and controlled by gum or other cushions or springs, by which the said blocks are restored to their central positions when relieved of the weight, so that they may always be ready for instantaneous action; and I further provide a cap-plate, which, while serving to retain the rocking block and its cushions or springs within their seat or chamber, serves also as a guide for the end of the spring, as hereinafter described.

General Description.

In the accompanying drawing, Figure 1 is a perspective view representing my invention applied in connection with a bolster-spring for vehicles. Fig. 2 is a plan or top view of the anti-friction bearing with a part of the cap-plate removed. Fig. 3 is a vertical section of the entire device, the line *xx*, Fig. 2, indicating the plane of section. Figs. 4 and 5 are, respectively, a plan view and section illustrating a modification.

A may represent a bed-plate or supporting-beam of any form, and B a bolster supported above it by means of a spring, C. Posts or standards D D may be employed to guide the bolster in a proper vertical path, and these standards may be shouldered to serve as

stops. Straps E E may also be employed to prevent the separation of the parts.

The above features do not constitute any essential part of my invention.

The ends of the spring C rest on rocking blocks F, which I prefer to construct as shown in Figs. 2 and 3, each of the said blocks approximating in form to a segment of a cylinder, the arc forming the bearing-surface for the spring. The entire lower edge of the rocking block rests on the bed-plate, and it is formed with gudgeons or trunnions *f f*, occupying bearings in the said bed-plate, and confined by the cap G, through which the rocking block projects upward to receive the end of the spring. A flange, *g*, projecting upward around three sides of the cap prevents the lateral displacement of the end of the spring. H H are cushions or springs of rubber or other material, which are compressed as the rocking blocks F are deflected to either side, and serve to restore the said blocks to their central positions when relieved of weight, so that they will be ready for instantaneous action. Spiral or other metallic springs may be substituted for the rubber cushions or springs H, if preferred.

In Fig. 2 one-half of the cap G is omitted to expose the cushions or springs H and one of the trunnions F. My improved cap and guide G *g* may also be used to advantage in connection with roller-bearings F', as illustrated in Figs. 4 and 5.

Claims.

The following is claimed as new:

1. The combination of the rocking blocks F and cushions or springs H, arranged to operate substantially as and for the purposes herein set forth.

2. The combined cap and guide G *g*, constructed and applied substantially as and for the purposes specified.

THEODORE R. TIMBY.

Witnesses:

OCTAVIUS KNIGHT,
WALTER ALLEN.