

(No Model.)

S. A. BAILEY.
VEHICLE SPRING.

No. 328,100.

Patented Oct. 13, 1885.

Fig 1.

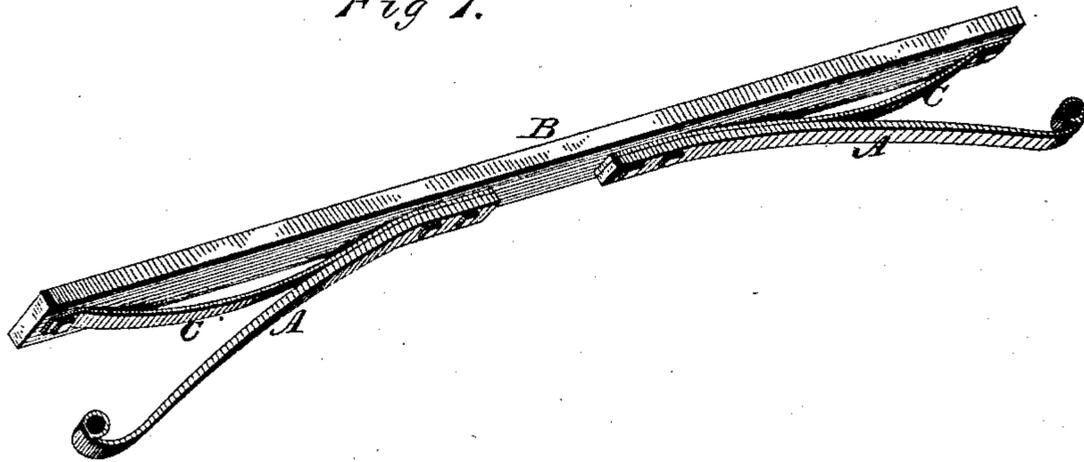
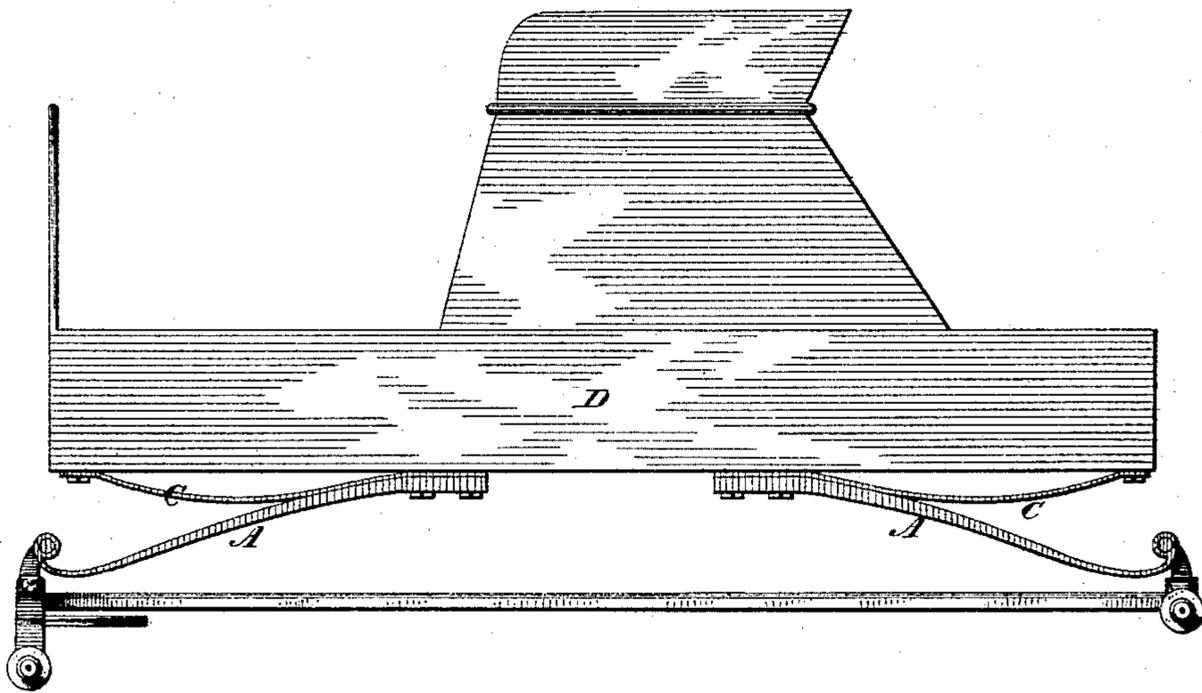


Fig 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 328,100, dated October 13, 1885.

Application filed June 27, 1884. Serial No. 136,141. (No model.)

To all whom it may concern:

Be it known that I, SELDEN A. BAILEY, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Vehicle-Springs, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to vehicle-springs provided with re-enforcing devices which graduate the elasticity of the spring to the weight of the load.

The object of this invention is to provide re-enforcing devices which will graduate the action of the springs in the same manner as the rigid curved lugs heretofore used for this purpose, and which will yield slightly under contact of the springs, so as to prevent sudden strains upon the latter.

Figure 1 is a perspective view of this improved vehicle-spring. Fig. 2 is a side elevation of a vehicle in which this improved spring is embodied as a side spring.

Similar letters of reference indicate corresponding parts in both figures.

This improved cushion is shown in connection with two steel springs, A A, which curve or incline downward from their inner to their outer ends. Their inner ends are attached by means of bolts, screws, or otherwise to a follower, B, or to the body D of the vehicle, and their outer ends are connected with the running-gear. Cushions C C, composed of thin plates of steel about half the thickness of the springs and uniformly curved or bent into bow shape, are respectively fastened at both ends to the follower B, or to the under side of the vehicle-body immediately over the springs A A. The inner ends of these cushions may be held by the same bolts which hold the inner ends of the steel springs.

In Fig. 2 these springs are shown as side

springs, the inner ends of the springs proper and of the cushions being attached to the under side of the vehicle-body (which thus serves as the follower) near the center of its length, the outer ends of the spring being connected, respectively, to the hind axle and bolster, and the outer ends of the cushions to the under side of the vehicle-body near its ends. The proportions of yield of the springs proper and of the cushions are about as four to one.

This arrangement constitutes a compound spring which is cheaply constructed and easily applied to vehicles of any size, and which imparts an easy riding movement to the carriage, whether under light or heavy loads. Moreover it is not liable to break.

These springs may also be used as cross-springs in connection with side bars or otherwise.

I claim as my invention and desire to secure by Letters Patent—

1. The combination, substantially as set forth, of a follower, springs attached at their inner ends to the follower and curved or inclined downward therefrom, and cushions over said springs composed of bow-shaped steel plates having both ends attached to the follower on the same horizontal plane.

2. The combination, substantially as set forth, of a follower, springs attached at their inner ends to the follower and curved or inclined downward therefrom, cushions over said springs composed of curved bow-shaped steel plates having both ends attached to the follower on the same horizontal plane, and bolts passing through the inner ends of said springs and cushions.

In testimony whereof I affix my signature in presence of two witnesses.

SELDEN A. BAILEY.

Witnesses:

W. T. FACKENTHALL,
W. H. LEVERICH.