

J. J. COBB.
Vehicle-Spring.

No. 212,791.

Patented Mar. 4, 1879.

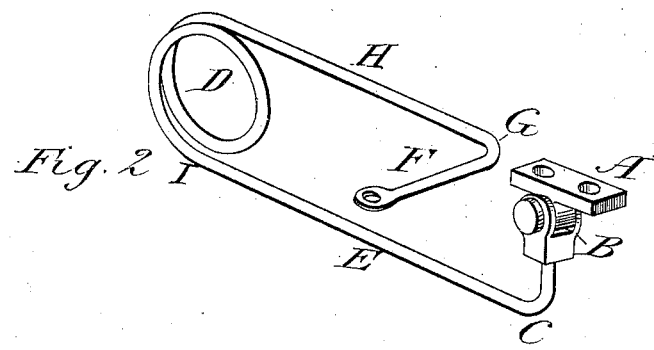


Fig. 2

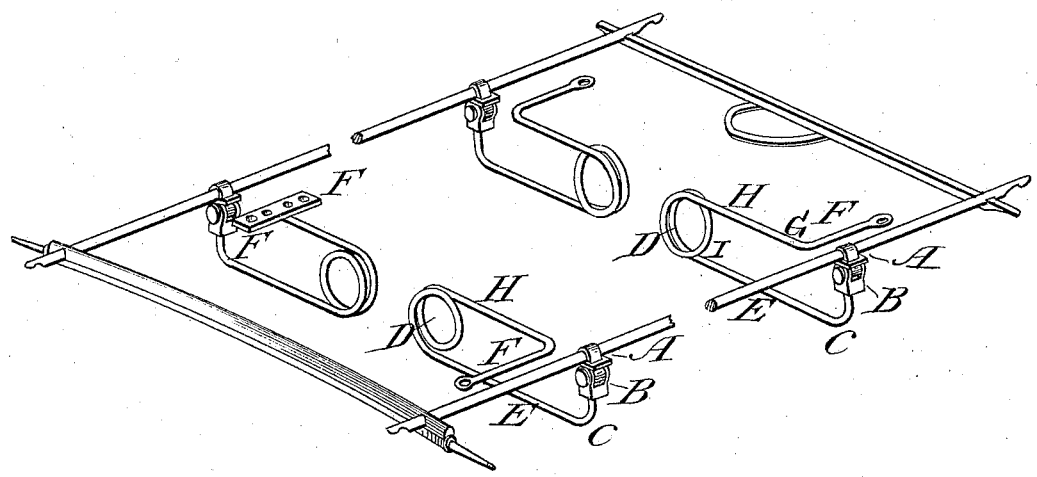


Fig. 1.

Attest:

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UNITED STATES PATENT OFFICE.

JOHN J. COBB, OF GRAND RAPIDS, MICHIGAN.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **212,791**, dated March 4, 1879; application filed August 3, 1878.

To all whom it may concern:

Be it known that I, JOHN J. COBB, of Grand Rapids, Michigan, have invented a new and useful Improvement in Springs for Buggies, Seats, &c., of which the following is a specification:

My invention relates to a coiled (not spiral) spring of peculiar construction.

This spring is made of a single rod or wire of round, square, octagonal, or any other desired shaped steel. This spring is made of a coil, once and one-half around at least, which coil is set perpendicular, as shown in drawings, Figure 2, having arm H, with elbow G, projecting and forming an L or T portion, F, for box of buggy, &c., to rest upon. This arm is bent horizontal.

Arm E is a projection from coil D in the same direction as arm H, having elbow C, bending perpendicularly and terminating in ears B.

The object of elbow C is to allow the stretch of the spring.

Bars B may be attached to clip-ties A, which clip-ties may be hung from side bars of buggy or otherwise.

The manner of using this spring is as follows: Having attached the clip-ties to any four points of the buggy, near each of the corners, upon the sides, the ears B of arms E are attached thereto, (four or more of the springs being used for a buggy or wagon.) From ears B arms E bend downward to elbows C, which turns the rod in a horizontal direction until it begins to elevate at point I, turning upward and over at least one and a half time, forming coil D; then passing outward horizontally parallel and above the lower arm any less distance, H, than the length of arm E; then bending to the right or left, or both, forming rest F for body of buggy, &c.

Some of the advantages of this spring over others are: The small amount of steel necessary to make the springs for a buggy costs much less, and is lighter than other springs in use. The peculiar shape of the coil, hung

as it is, gives no strain upon any one portion of the spring, but distributes the strain equally, conveying to the buggy no sudden or jerking motion, no matter how rough the road or size of the ordinary obstacles passed over. These springs being attached to opposite sides of the buggy, as the one coil is closed by weight upon one side the opposite coil is opened, thereby producing a double resistance to side motion. The peculiar construction and hanging of this spring also prevents any considerable back or front motion to the body of the wagon, which under all circumstances has an easy and indescribably pleasant motion, whether bearing a single individual or several persons.

I am aware that there have been in use spiral springs of various kinds. To such I make no claim, the action of my spring being entirely different from that of any ordinary coiled or spiral spring.

I disclaim any desire to obtain a patent upon a spring consisting of or having two coils in or upon the same piece of metal, or any other form of double-coil spring.

What I do claim as my invention, and desire patented, is—

1. A spring for buggies, seats, &c., consisting of a single perpendicular coil, D, formed near the center of a bar or rod of steel, the two projecting ends of which, extending in the same direction, form upper arm, H, (the end of which is shaped at angle G into rest F for the box, seat, &c.) and lower arm, E, longer than arm H, and bent near the end to a perpendicular elbow, C, and upon the end having ears B, as and for the purposes set forth.

2. The above-described spring for buggies, seats, &c., consisting of a single perpendicular coil, D, as described, having upper arm, H, with angle G and rest F, also having arm E, with elbow C and ears B, in combination with clip-ties A, as and for the purposes set forth.

JOHN J. COBB.

Witnesses:

Capt. G. W. McCORMICK,
EDWIN A. BURLINGAME.