(No Model.)

G. W. STOWE.

VEHICLE SPRING.

No. 301,299. Patented July 1, 1884.

Fig. 1.

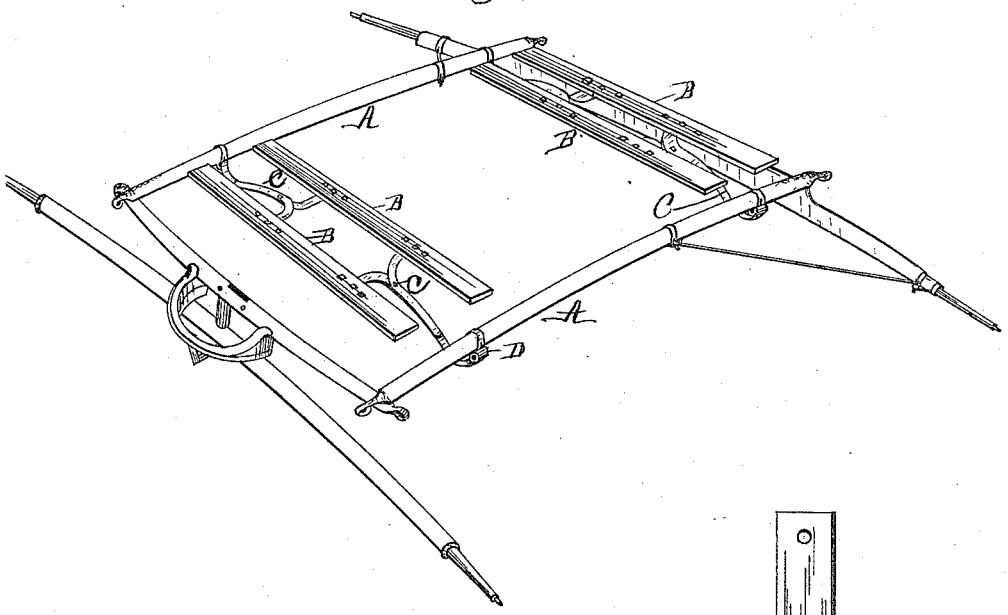


Fig. 2.

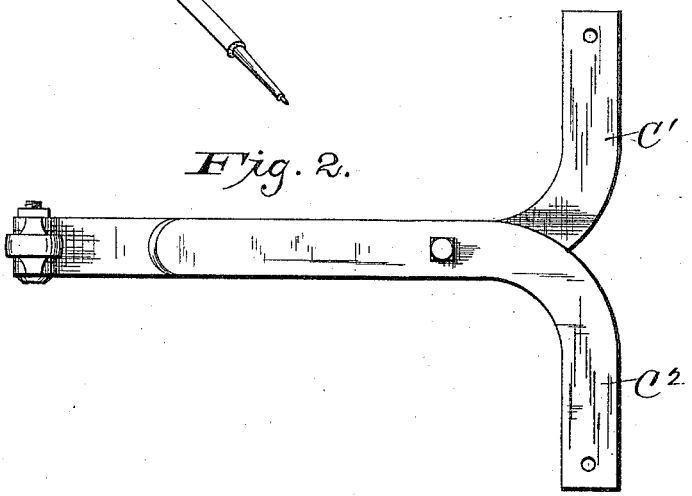
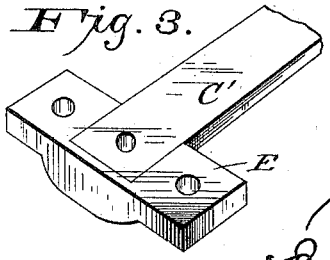


Fig. 3.



Witnesses:
Chas. S. Kalb

Inventor:
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UNITED STATES PATENT OFFICE.

GEORGE W. STOWE, OF NEW HAVEN, CONNECTICUT.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 301,299, dated July 1, 1884.

Application filed November 17, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. STOWE, a citizen of the United States of America, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Carriage-Springs, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to vehicle-springs, and belongs to the class of springs which are connected to side-bars. My springs extend only partially across the vehicle, and are attached to cross bars for supporting the body. I employ four springs—two in front and two in the rear—and support on each pair of springs a pair of cross-bars, which receive and sustain the body of the vehicle. Two leaves of the springs are branched or bent laterally at or approximately at right angles to their length and in opposite directions to each other, to support the cross-bars on which the body rests at a little distance apart. The leaves are held together by a bolt or rivet.

The accompanying drawings illustrate what I consider the best means for carrying out the invention.

Figure 1 is a perspective view of my spring applied to a vehicle; Fig. 2, a detail enlarged view of the spring; Fig. 3, an inverted plan of the end of a leaf and its attaching-clamp.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A A are the side bars of a vehicle, and B B are the cross-bars on which the body rests.

C C C C represent my springs uniting the cross-bars and side bars. One leaf of each spring extends from the side bar to a point toward the center of the vehicle, and is branched or bent nearly at right angles laterally, to meet and be secured to the cross-bar B. This leaf in the springs is marked C'. It is fastened to the side bar by means of the usual clip, D, and is secured to the cross-bar by a clamp, E, which covers the end and the exterior face and sides of the leaf for a short distance back and serves to hold the end of the leaf securely. Another leaf, C^2, of each spring rests upon the leaf C' in the usual manner, but is held securely thereon by a bolt and nut, *f*. At its inner end this leaf is also branched or bent similarly to leaf C', but in the opposite direction, to reach out and be secured to the other cross-bar B of the same pair by means of a clamp, as described for leaf C'. More leaves may be placed in the spring, but are not to be bent. As thus constructed and applied, the length of each leaf is only about half that of the leaves of an ordinary elliptical spring, which reach from side to side of a vehicle, and thus strength and freedom from fracture are thereby increased. Flat pieces of metal are placed on the cross-bars on the under side between them and the ends of the bent leaves, in order to prevent wear and tear of this part.

What I claim, and desire to secure by Letters Patent, is—

A vehicle-spring consisting of two or more leaves, as described, the front end of the lower leaf being attached to the side bar by a clip, in the usual manner, and the inner end being bent at right angles to the direction of its length and secured to the cross-bar, the adjoining leaf having its front end formed in the usual manner and its inner end bent at right angles to its length and secured to the cross-bar, the two leaves having their inner ends bent in opposite directions, as shown and set forth.

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

GEORGE W. STOWE.

Witnesses:

GEORGE TERRY,

HIRAM A. GRAY.