

J. F. BRIDGET.  
SIDE-BAR SPRING VEHICLES.

No. 189,183.

Patented April 3, 1877.

Fig. 1.

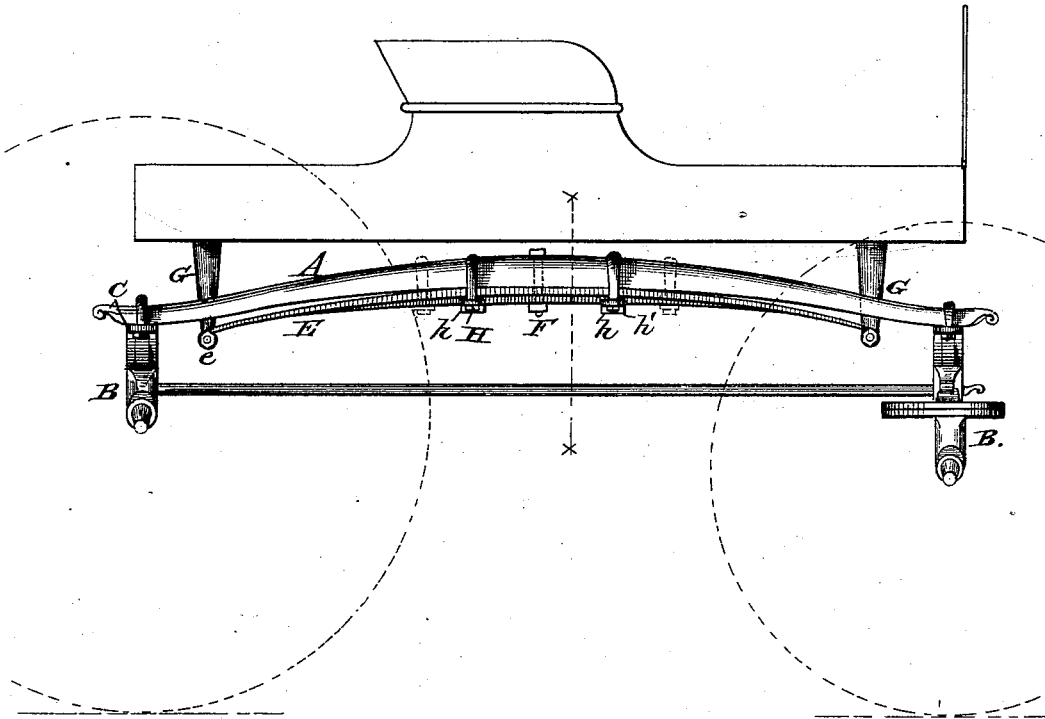


Fig. 2.

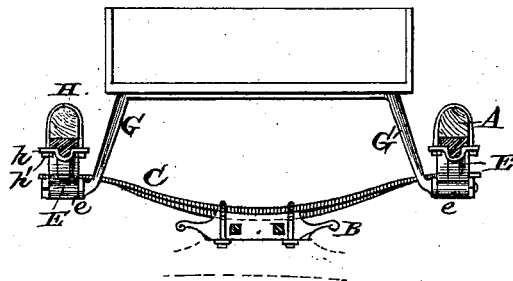
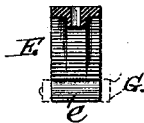


Fig. 3.

Attest:  
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# UNITED STATES PATENT OFFICE

JOHN F. BRIDGET, OF WASHINGTON, DISTRICT OF COLUMBIA.

## IMPROVEMENT IN SIDE-BAR SPRING-VEHICLES.

Specification forming part of Letters Patent No. 189,183, dated April 3, 1877; application filed March 21, 1877.

*To all whom it may concern:*

Be it known that I, JOHN F. BRIDGET, of Washington city, in the District of Columbia, have invented certain new and useful Improvements in Side-Bar Spring-Vehicles, of which the following is a specification:

This invention relates to certain improvements in that class of side-bar buggies in which the springs are attached directly to the side bars, its object being to provide for regulating the tension of the springs, and thus regulate their elasticity to suit different weights.

My invention consists in the combination, with the side bars and their springs, of a central fastening-bolt and adjustable clips at each side of the same, the position of which may be varied, as required, in order to adjust the tension of the springs, as more fully hereinafter set forth.

In the drawings, Figure 1 represents a side elevation of a portion of buggy illustrating my invention; Fig. 2, an end view of the same; and Fig. 3, detached views of the spring securing the same, in perspective and transverse vertical section.

The letter A represents the side bars of the buggy, located at each side of the frame, or truck B of the same, and secured at or near the ends to the ends of the transverse springs C, which are secured midway between their ends to the front and rear of said truck or frame. Directly below the side bars A are secured the metallic springs E, being attached to said side bars at or about midway between their ends by means of bolts F. Said springs are, preferably, constructed of sheet or other elastic metal, and may consist each of a flat bar properly bowed, or of a series of leaves properly secured together, if extra strength and elasticity are required. The ends of the springs E are provided with loops or eyes e, for the reception of the ends of the transverse cross-bars G G, which are securely attached to the bottom of the buggy, and are extended downwardly at each side and bent outwardly at their extremities, so as to rest within the loops or eyes of the springs E, and thus support the buggy-body between the side bars, and in a position to ride easily and gracefully upon said springs.

At each side of the bolts by means of which the springs are secured to the side bars, and embracing both, are secured the movable yokes or straps H, which are adjustably held around the springs and side bars by means of cross-bars h, extending under the springs, and the screw-bolts h' secured to the free ends of said yokes or straps, which are screw-threaded for the purpose. The object of said straps or yokes is to vary the tension of the springs, so as to adjust the elasticity of the same to suit loads of different weights, and thus provide for the easy riding of the buggy, whatever may be the weight or number of the occupants. This is accomplished by moving the yokes to or from the central point of attachment of the side bars and springs, as occasion may require. The said yokes or straps not only serve to vary the tension and elasticity of the springs, but they also serve to increase the strength and compactness of the springs and side bars as thus secured together, without correspondingly increasing the weight of such parts, thus enabling me to dispense with the strengthening plates or braces which have heretofore been found necessary in this class of buggies, and which tend materially to encumber the parts and render the same heavy and unwieldy.

The side bars are secured, at or near each end, to transverse springs C, secured midway between their ends to the front and rear of the truck or frame B of the buggy by means of straps or yokes, or in any other convenient manner.

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

The combination, in a side-bar buggy, of the side bars and their springs with the transverse cross connecting-bars, the central fastening-bolt, and the adjustable clips, all constructed and arranged to operate substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

JOHN F. BRIDGET.

Witnesses:

JAMES L. NORRIS,  
A. H. NORRIS.