

P. F. STICKER.
Vehicle-Spring.

No. 216,982.

Patented July 1, 1879.

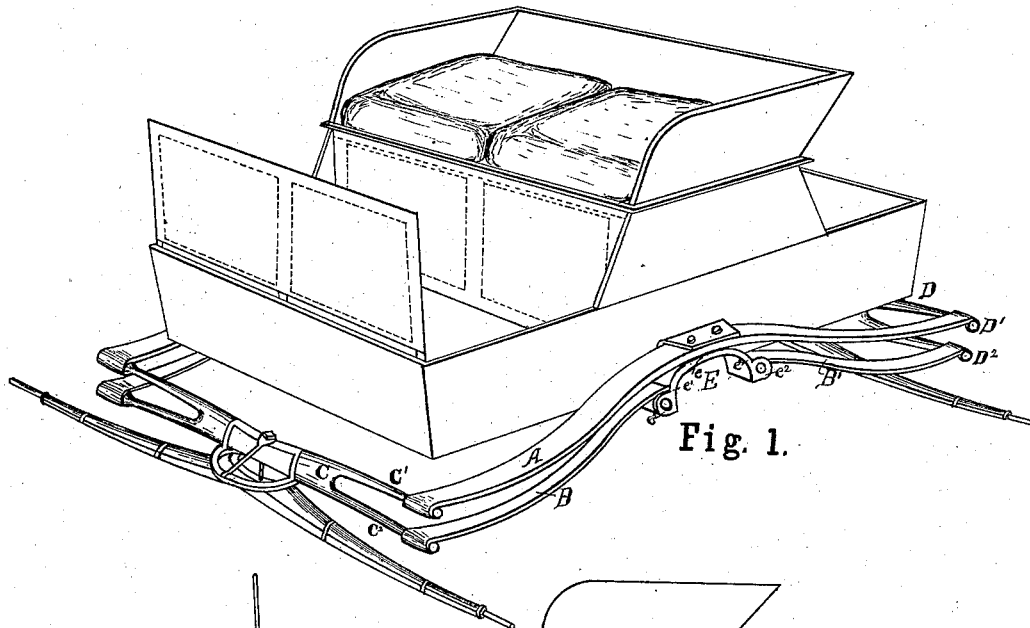


Fig. 1.

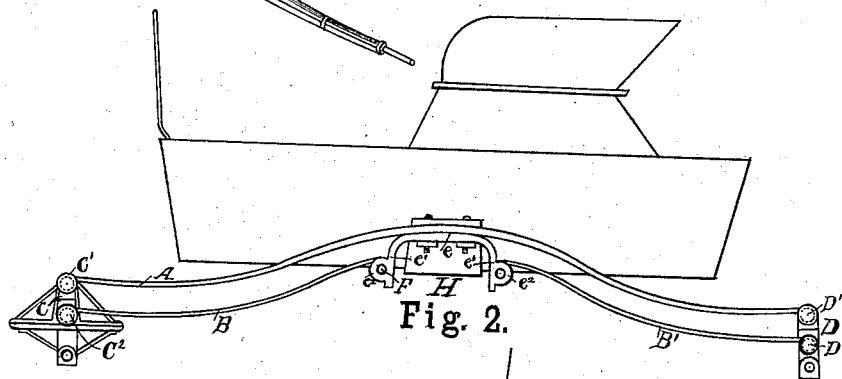


Fig. 2.

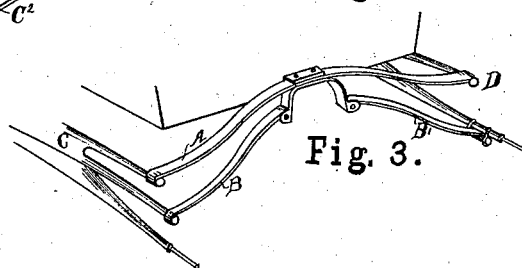


Fig. 3.

Attest.

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UNITED STATES PATENT OFFICE.

PETER F. STICKER, OF CINCINNATI, OHIO, ASSIGNOR TO EMERSON, FISHER & CO., OF SAME PLACE.

IMPROVEMENT IN VEHICLE-SPRINGS.

Specification forming part of Letters Patent No. **216,982**, dated July 1, 1879; application filed April 23, 1878.

To all whom it may concern:

Be it known that I, PETER F. STICKER, of Cincinnati, Ohio, have invented certain new and useful Improvements in Vehicle-Springs, of which the following is a specification.

My invention relates to that class of springs that extend from front to rear of the vehicle; and consists, first, of a single spring extending from bolster to bolster and connected with braces in a peculiar manner, as hereinafter set forth, the result being to prevent the axle from rolling; secondly, of a device for connecting the braces to the spring.

In the accompanying drawings, Figure 1 represents a perspective view of my device attached to a carriage, and Fig. 2 is a side view of device shown in Fig. 1. Fig. 3 is a modification of my device.

A represents the spring; B B', the braces; C D, the bolsters. The bolster C divides into two branches, C¹ C², on each side, and similarly the bolster D divides into branches D¹ D². The extremities of branches D¹ C¹ are contracted in diameter, so as to form a bearing-surface, around which the ends of the spring A are curled, as indicated by dotted lines in Fig. 1. The ends of the branches C¹ D¹ are knocked into a head, thereby holding the spring firmly in position.

Other means for holding the spring in position besides knocking the ends of the branches C¹ D¹ into heads may be adopted and still be within the scope of my invention.

Attached to the spring A, in the position shown in Fig. 1, is the brace-supporter E. This supporter consists of a horizontal portion, *e*, provided with downwardly-extending flanges *e*¹. Two ears, *e*², extend from the edges of each flange *e*¹.

The inner end of brace B is bent into a curl. This curl is placed between the ears *e*² and a rivet, F, passed through the ears and the hole in the curl. The rivet F fits the curl of brace B loosely enough to allow the latter to turn freely on the rivet.

The outer extremity of brace B curls around branch C² of bolster C, like the end of spring A around the branch C¹ of bolster C. The brace B' is arranged similarly to brace B.

In the modification shown in Fig. 3 the brace is entirely external to the spring, and passes obliquely outward, to be attached to the extremity of the bolster and to the axle.

The rear bolster is attached directly to the axle, and a fifth-wheel intervenes between the front bolster and its axle.

The body of the vehicle rests on a broad flat support, H, whose ends are turned upwardly at the edges of the body, and then outwardly to rest upon the top of springs A, to which they are bolted.

It is easily seen that when the spring A is strained by pressure upon the vehicle-bed it tends to force the upper branches of the bolsters over the axles; but at the same time the braces B B' also force the lower branches of the bolsters outwardly, and as both branches are forced outwardly at the same time the axles are necessarily carried with them, thus always retaining each axle and its corresponding bolster in the same vertical plane.

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

1. The combination of spring A, braces B B', and branched bolsters C D, substantially as and for the purposes set forth.

2. The combination of spring A, braces B B', branched bolsters C D, and brace-supporter E, substantially as and for the purposes specified.

3. The brace-supporter E, placed directly beneath spring A, and consisting of portion *e*, flange *e*¹, and ears *e*², in combination with the braces B B', substantially as and for the purposes specified.

PETER F. STICKER.

Attest:

J. A. MACKEY,
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