

(No Model.)

H. W. PELL.

SPRING COUPLING FOR VEHICLES.

No. 342,533.

Patented May 25, 1886.

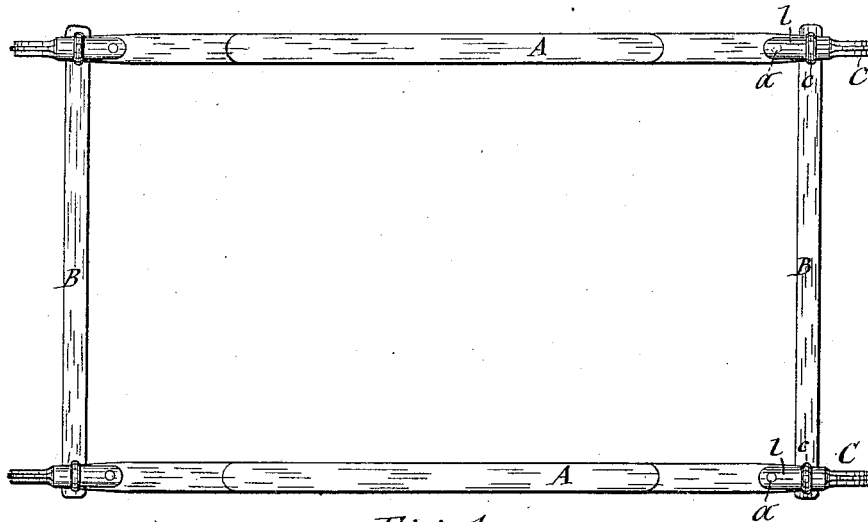


Fig. 1

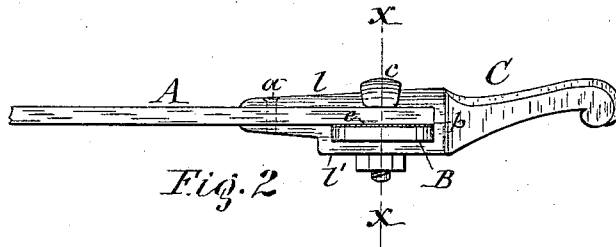


Fig. 2

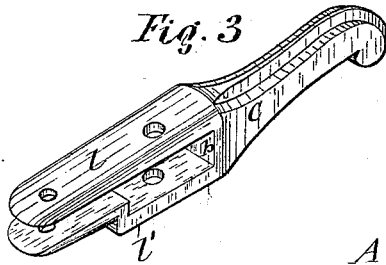


Fig. 3

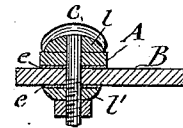


Fig. 4

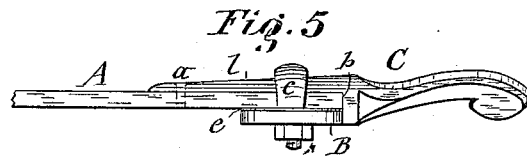


Fig. 5

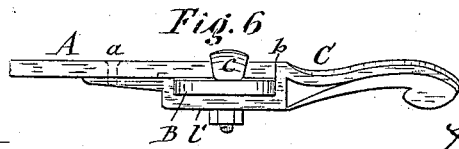


Fig. 6

WITNESSES

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UNITED STATES PATENT OFFICE.

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SPRING-COUPLING FOR VEHICLES.

SPECIFICATION forming part of Letters Patent No. 342,533, dated May 25, 1886.

Application filed March 29, 1886. Serial No. 196,897. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. PELL, of Rome, in the county of Oneida, in the State of New York, have invented new and useful Improvements in Spring-Couplings for Vehicles, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention has reference to the connection of the ends of cross-springs to the ends of side springs of vehicles; and it consists, essentially, in the combination of the side spring and cross-spring, lapped one upon the other at their ends, and a coupling-head projecting from the end of the side spring, and having a lip or lips extending lengthwise said spring and across the cross-spring, and secured to the lapped portions of the springs, thereby obtaining a perfectly secure, neat, compact, and inexpensive spring-coupling; and the invention also consists in the combination, with the lapped ends of the springs and coupling-head having lips embracing the lapped portions of said springs, of linings interposed between said parts, to render the same anti-rattling.

The invention is fully illustrated in the annexed drawings, wherein Figure 1 is a plan view of a set of vehicle-springs provided with my improved coupling. Fig. 2 is an enlarged side view of one end of the springs connected by my improved coupling. Fig. 3 is a detached isometric view of the coupling. Fig. 4 is a transverse section on line *x x*, Fig. 2; and Figs. 5 and 6 illustrate modifications of my invention.

Similar letters of reference indicate corresponding parts.

A A and B B represent, respectively, the side springs and cross-springs of a vehicle. These springs I couple together by lapping the end of one across the end of the other, and generally the end of the side spring across the top of the end of the cross-spring. A coupling-head, C, is made to project from the end of the side spring, and preferably shaped in imitation of the usual finish of side bars of vehicles. This coupling-head is provided with a lip or lips, *l l'*, which extend lengthwise the side spring and across the lapped portions of the two springs, and are riveted or otherwise

firmly secured to the side spring back of the cross-spring, as shown at *a* in Figs. 1, 2, 5, and 6 of the drawings. The coupling-head is formed with a shoulder, *b*, by which it abuts against the end edge of the side spring and side edge of the cross-spring, and thus the cross-spring is effectually prevented from slipping on the side spring lengthwise the latter.

By means of a clip, *c*, placed astride the lip of the coupling-head, and having its shank or shanks passing either through the lapped portions of both springs, as shown in Fig. 4 of the drawings, or across the edges of the side spring and through the cross-spring, and provided with the usual nuts on the lower ends of said shanks, the coupling-head receives an additional fastening on the springs, and the lapped portions of the springs are firmly tied together.

If desired, either the lower or the upper lip of the coupling-head may be dispensed with, as shown in Figs. 5 and 6 of the drawings; but in either case the remaining lip is to be firmly secured to the side spring back of the cross-spring, and fastened to the lapping portions of said springs by a clip, *c*, and the coupling-head is to be provided with the shoulder across the end edge of the side spring and side edge of the cross-spring.

In order to render my improved spring-coupling anti-rattling, I interpose between the lapped portions of the spring a lining, *e*, of leather or rubber or other suitable material.

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

1. The combination of the side spring and cross-spring lapped one across the end portion of the other, the head C, projecting beyond the end of the side spring and formed with the shoulder *b*, abutting against the end of the side spring, and having a lip or lips extending lengthwise the side spring and beyond the lapped portions of the two springs, and a clip tying said lip or lips and lapped portions of the springs together, substantially as set forth and shown.

2. The combination, with the side spring and end spring lapped one upon the other at their ends, of the coupling-head C, projecting from

the end of the side spring, and formed with lips *l l'*, extending lengthwise the side spring and embracing the lapped end portions of the two springs and fastened to the top and bottom of the side spring back of the cross-spring, substantially as described and shown.

3. The combination, with the side spring and cross-spring lapped one upon the other at their ends, of the coupling-head C, having lips *l l'*, embracing the lapped portions of the springs, and linings interposed between embraced portions of the springs, substantially as described and shown.

4. The combination, with the side spring and cross-spring lapped one upon the other at their ends, of the coupling-head C, having lips *l l'*,

embracing the lapped portions of the springs and fastened to the side spring back of the cross-spring, and a clip placed astride one of the lips of the coupling-head C and fastened to the cross-spring, substantially as described and shown.

In testimony whereof I have hereunto signed my name and affixed my seal, in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 26th day of March, 1886.

HENRY W. PELL. [L. S.]

Witnesses:

C. H. DUELL,
C. BENDIXON.