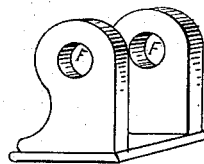
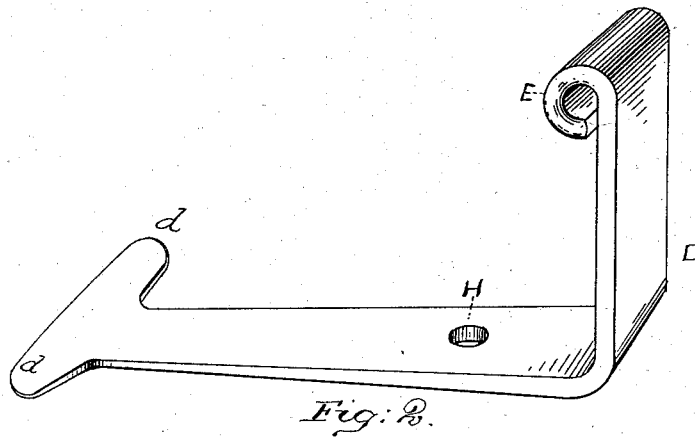
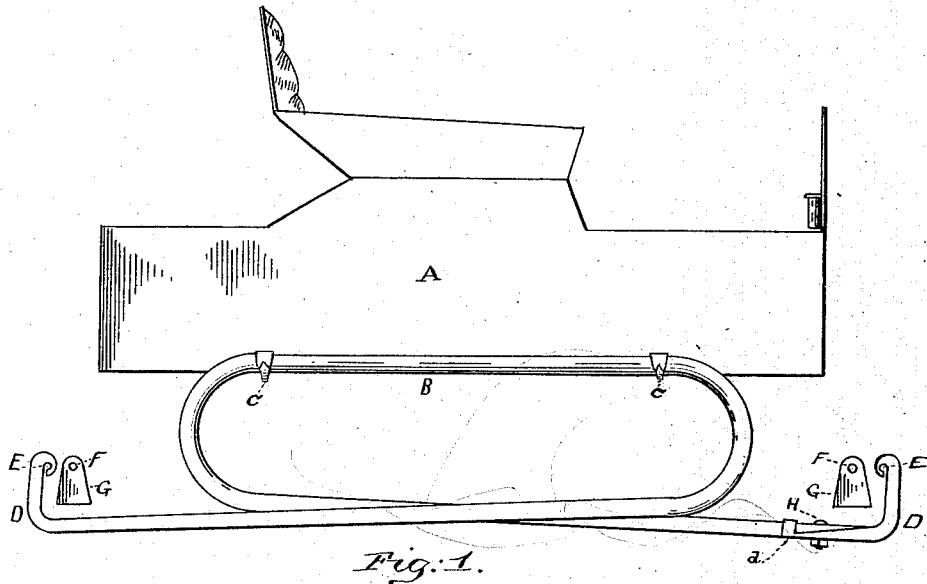


(No Model.)

W. C. PERRY.  
VEHICLE SPRING.

No. 384,781.

Patented June 19, 1888.



Witnesses.  
W. C. Perry.  
H. J. Perry.

Inventor.  
William C. Perry.  
By his Atty.  
John C. Perry.

# UNITED STATES PATENT OFFICE.

WILLIAM C. PERRY, OF CHARLESTOWN, RHODE ISLAND.

## VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 384,781, dated June 19, 1888.

Application filed June 28, 1887. Serial No. 242,799. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. PERRY, of Charlestown, in the county of Washington, State of Rhode Island, have invented certain new and useful Improvements in Vehicle-Springs, of which the following is a specification, reference being had to the drawings accompanying the same and making part thereof.

The object of this invention is to furnish an improved form of vehicle-springs designed especially for use on buggies and light pleasure-carriages.

My improved springs are peculiar in construction, having an elongated central coil to be secured at two widely-separated points to the sides or ends of the vehicle-body, and then bent downwardly on a curve and to front and rear or to right and left about parallel to said central and fixed portion, while the extreme ends are turned up and formed with eyes to receive bolts by which they are suspended from shackles on the running-gear, one or both of the ends being made separately from the body of the springs and spliced on.

In the drawings, Figure 1 is an elevation of a buggy-box with one of my improved springs applied thereto. Figs. 2 and 3 represent, on a scale much enlarged, details of construction.

A represents the buggy-box, and B one of the springs—in this instance shown as applied along the side of the box at its lower edge and secured thereto by clips C, placed as far apart as possible. The central portion of the spring is formed as an elongated coil or otherwise, the ends projected to front and rear, respectively, so that the springs and the box, A, mounted thereon may be properly supported.

The extremities of the springs are turned up,

as at D in Fig. 1, and formed with eyes E, to receive the bolts inserted in bolt-holes F of shackles G, or are otherwise connected to the rear axle and to the rocker-bar above the front axle. One of the upturned ends D of the spring may be formed integral with the body or coil, while the other is made separate therefrom and joined thereto by an oblique splice. Both these forms of construction are represented in Fig. 1, while in Fig. 2 the end, D, to be spliced on is shown enlarged and provided with lateral wings or flanges d, to be clasped about the body of the spring, as in Fig. 1. A bolt, H, through the parts to be united makes a good firm joint. Instead of being applied to the sides of the box A, the springs may be similarly secured to the front and rear ends, and be supported, respectively, by the axle and rocker-bar or by side bars extending from one to the other. By making one or both ends of the spring distinct from the coil and subsequently uniting them, variations in size of the body A are readily provided for.

Having thus described this improvement of mine in vehicle-springs, I claim—

The combination, with a vehicle-body, of a pair of supporting-springs, each formed with a central coil or otherwise and secured at remote points to said body, and with projecting upturned ends, one or more of which are made separate from and applied to the springs, substantially as and for the purposes herein set forth.

WILLIAM C. PERRY.

Witnesses:

JOHN G. PERRY,  
HOWARD B. PERRY.