A. J. Ritter.

Carriage Spring.

No. 48,444. Patented Jun. 27, 1865.

Fig: 1.

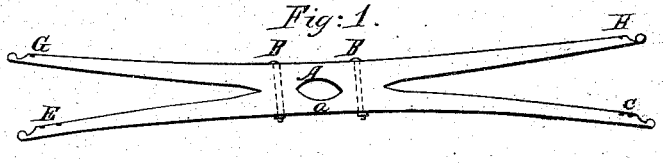


Fig: 2.

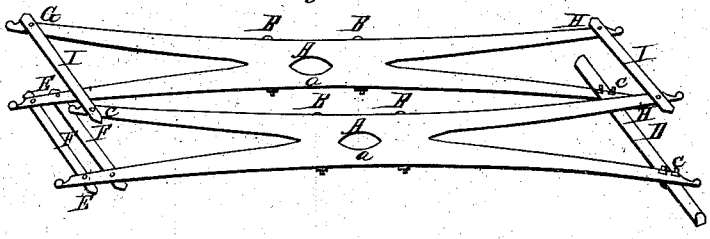


Fig: 3.

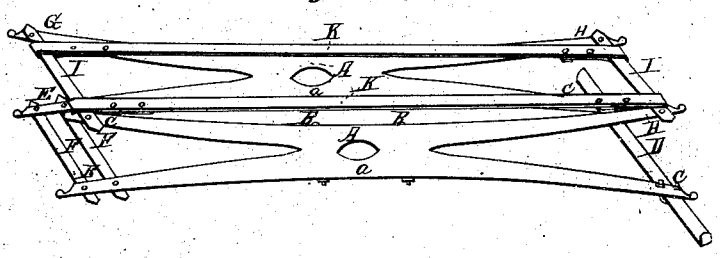
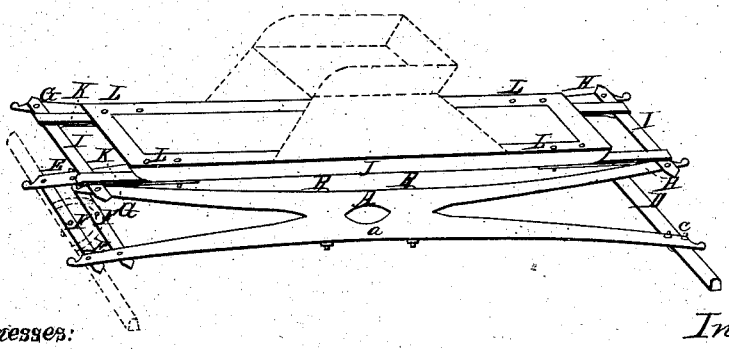


Fig: 4.



Witnesses:

Samuel Halliday

Franklin S Lawrence

Inventor:

Andrew J. Ritter

UNITED STATES PATENT OFFICE.

ANDREW J. RITTER, OF RAHWAY, NEW JERSEY.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. 48,444, dated June 27, 1865.

To all whom it may concern:

Be it known that I, ANDREW J. RITTER, of Rahway, in the county of Union, State of New Jersey, have invented a new and Improved Mode of Constructing Carriage-Springs for Carriages, by which sufficient elasticity is obtained without using steel springs, as heretofore; and I do declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and letters of reference marked thereon.

The nature of my invention consists in providing double side spars and placing them upon the axle and axle-bars in such a manner as to form side springs, which will, in connection with braces of leather or rubber belting, support the carriage-body and produce sufficient elasticity for all necessary purposes. The lower spar connects the axles and forms the carriage part in such a manner as to do away with the steel springs, perch, perch-irons, body-irons, &c., common with old devices, whereby a light and durable vehicle is produced with half the usual cost.

To enable others skilled in the art of making carriage-springs for carriages, and to make my improved springs for carriages, I will describe it in the following specification and drawings annexed thereto, which form a part of the same, reference being had to the letters and figures marked thereon.

The same letters refer to the same parts in all of the drawings.

Now, instead of constructing the springs and applying them in the usual way, and using the common perch or reach to hold or couple the axles, I do it as follows: To form the double side spars, A *a*, as at Figure 1, I use two single side spars made of wood and of the ordinary length, size, and form, and bolt them together about midway with two or more bolts, each bolt passing through a shoulder or bearing of the spars, as shown at B B, Fig. 1. The back end of the lower spars, *a a*, at *c' c'*, I fasten to the back axle, D, by means of the common clip, and the front ends of the spars *a a* at E E, I fasten to the axle-bars F F by means of the common bolts, as shown at Figs. 2 and 3. To the ends of the top spars, A A, at G G H H, I fasten the cross-bars I I by means of clips or bolts, as the case may be. This forms the springs and carriage part also, as shown at Figs. 2, 3, and 4. To make the side spars more elastic and easy in motion, and to support the rockers or body J to its proper place at the same time, I apply two thorough-braces, K K, of proper width and length, made of leather or rubber belting, and place them near and around the ends of the cross-bars I I, and draw them tight from front I to back bar I, as shown at Figs. 3 and 4, the ends of the braces K K lapping under the ends of the body J and bolting fast, as at L L L L, Fig. 4. By constructing the springs in this manner sufficient elasticity is obtained for all necessary purposes, and the same parts that form the springs form the carriage part and support the body and hold it to its proper place.

I am aware that vehicles are hung upon thorough-braces, and light wagons are hung upon single side spars, and also that box or buckboard wagons are made without perch or reach. These individually I do not claim. I do not claim any particular substance for the double side spars, nor do I claim any particular mode of fastening the braces or fastening the spars to the axle-bars or axle-bed; but

What I do claim as my invention, and desire to secure to me by Letters Patent, is—

The double side spars, A *a* A *a*, or their equivalent, in combination with the thorough-braces K K, cross-bars I I, axle *c'*, and axle-bars F F, for the purpose herein set forth and specified.

Signed this 19th day of January, 1865.

ANDREW J. RITTER.

In presence of—

WM. GIBBY,

ALEX. GIBBY.