

A. WOEBER.
Carriage-Spring.

No. 198,259.

Patented Dec. 18, 1877.

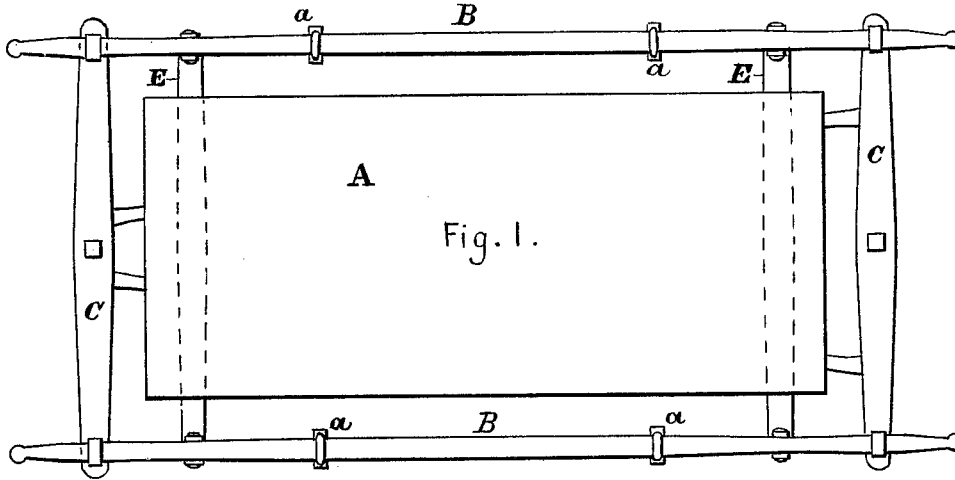


Fig. 1.

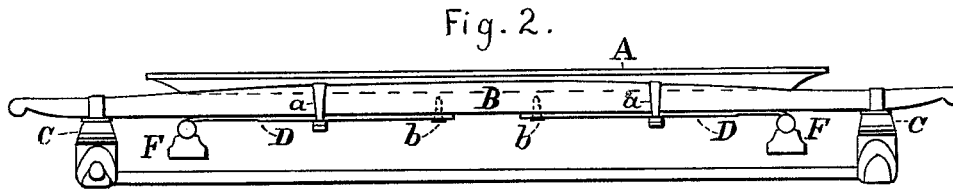


Fig. 2.

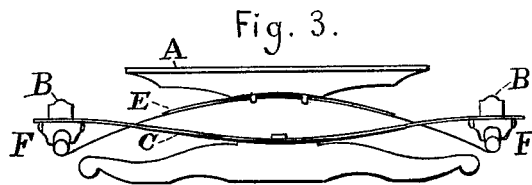


Fig. 3.

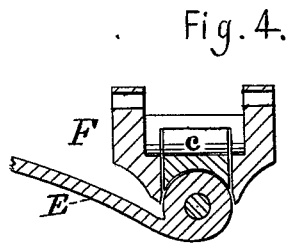


Fig. 4.

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UNITED STATES PATENT OFFICE.

AMOS WOEBER, OF DAVENPORT, IOWA.

IMPROVEMENT IN CARRIAGE-SPRINGS.

Specification forming part of Letters Patent No. **198,259**, dated December 18, 1877; application filed August 24, 1877.

To all whom it may concern:

Be it known that I, AMOS WOEBER, of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Carriage-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a plan view of side bars or spars and cross-springs. Fig. 2 is a side view of same. Fig. 3 is a front-end view. Fig. 4 is a vertical section of spring-coupling.

My invention relates to springs of spar-buggies and other carriages; and consists in certain improvements in the construction of the same, as hereinafter shown and described.

This invention is more especially adapted to buggies or other carriages constructed with side bars or spars, with which the springs are connected, as shown in the drawing.

A designates the bed of the carriage, resting on the cross-springs E. B indicates the side bars, supported at their extremities by the springs C. Two separate springs, D, are placed under each side bar or spar B, as shown in Fig. 2, the inner end of each of these springs being fastened to the side bar by means of a screw, *b*, and the other end being coupled at F to the end of cross-spring E. The springs D are further adjustably secured to the side bars by means of the clips *a*, which may be adjusted at any required distance from the ends of the springs to secure the required

strength and elasticity. When the buggy is to be used for a light load or weight, the clips are adjusted farther from the couplings, and when used for a heavy weight the clips are adjusted nearer to the couplings.

The coupling F, forming the connection between the springs D and E, and illustrated in section in Fig. 4, is provided with a cushion, *c*, of rubber or other suitable material, the same being placed in a recess, so that it is set between the connected ends of the springs, and at the bearing-point between them, to prevent noise in use.

These couplings and springs, thus constructed, adjusted, and combined, have free vertical motion, without injurious strain or unpleasant creaking.

Having described my invention, I claim—

1. The double spring coupling F, provided with an elastic cushion, *c*, inclosed in a cavity in the coupling, and constructed and adjusted to form elastic bearings for the ends of both of the springs, connected by the coupling, substantially as described and shown.

2. The double spring coupling F, provided with an elastic cushion, *c*, inclosed in a cavity in the coupling, as described, in combination with the side springs D and cross-springs E, substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

AMOS WOEBER.

Witnesses:

PETER KIRKER,
BERNHARD FINGER.