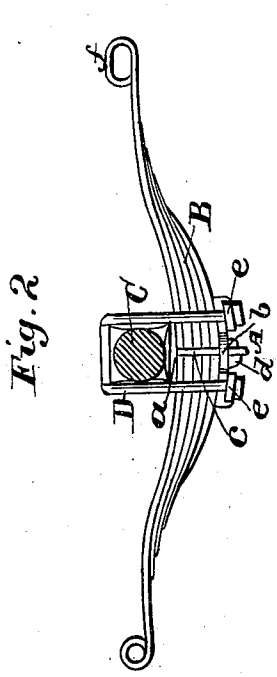
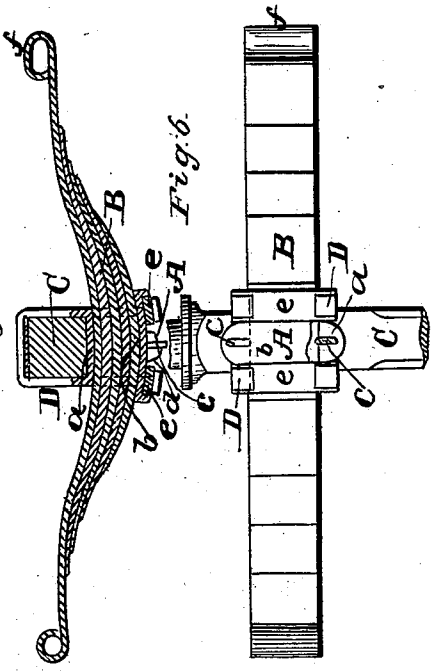
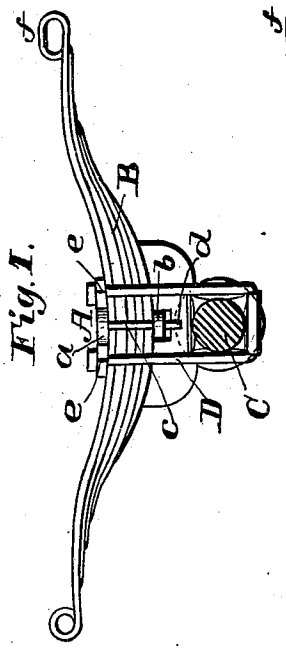
J. SEBASTIAN.

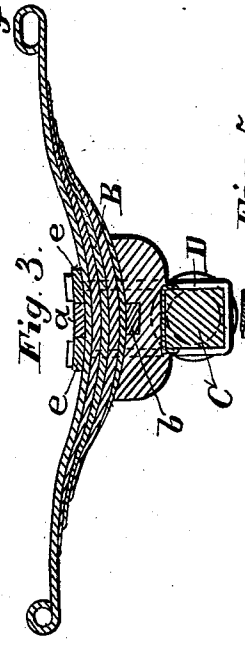
Wagon Spring.

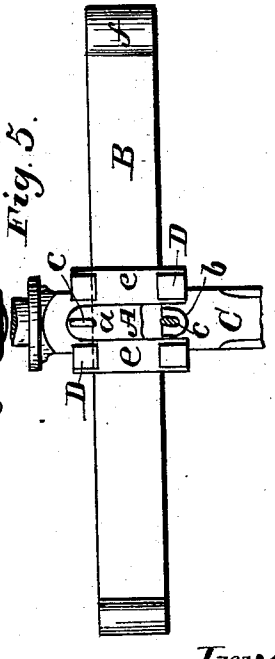
No. 72,425. Patented Dec. 17, 1867.











Witnesses:
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United States Patent Office.

JACOB SEBASTIAN, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND LEWIS SAAL, OF SAME PLACE.

Letters Patent No. 72,425, *dated December* 17, 1867.

IMPROVEMENT IN WAGON-SPRINGS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JACOB SEBASTIAN, of the city, county, and State of New York, did invent a new and useful Improvement in Wagon-Springs; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which drawings—

Figures 1 and 2 are side elevations of this invention, showing two modifications.

Figures 3 and 4 are longitudinal sections thereof.

Figures 5 and 6 are plans of the same.

Similar letters indicate corresponding parts.

This invention consists in a strap or clamp, composed of a top and bottom cross-bar and two lateral keys. These keys are placed edgeways towards the leaves of the spring, and they catch in grooves in the edges thereof, so as to prevent said leaves from turning. One of the cross-bars is either fitted between the cross-plates of the clips, or it is provided with lips, catching over the edges of said cross-plates, so that the same is held securely in position by the clips. The other cross-bar of the clamp is either let into the spring-block, or provided with lips, catching over the edges of the axle in such a manner that the same is prevented from turning, and effectually assists in keeping the spring from turning. The spring itself is provided, at one or both ends, with an oblong eye, so that said spring can stretch out without producing an undue strain on its connections.

The usual way of securing the leaves of wagon-springs together is by means of bolts, which pass through holes in said leaves. By these holes the leaves are weakened, and they become liable to break, and, furthermore, the bolts themselves, however strong, are, many times, cut off by the longitudinal motion of the leaves, one on top of the other.

These disadvantages are avoided by the use of my clamp, A, which consists of two cross-bars, *a b*, and keys *c*, which are secured to the cross-bar by wedges, *d*. In figs. 1, 3, and 5, where the spring B is situated above the axle C, this clamp is applied as follows: The top cross-bar *a* is fitted nicely between the cross-plates *e* of the clips D, and the keys *c* catch in grooves in the edges of the leaves of the spring, as seen best in fig. 5, while the bottom cross-bar *b* is let into the spring-block E. When the wedges *d* are driven in, the leaves of the spring are securely bound together, and all the parts of the clamp serve to prevent said spring from turning. The leaves of the spring retain their full strength, and they are not permitted to slide on each other, in a longitudinal direction, by the keys *c* catching in the grooves in the edges of the leaves; and, for these reasons, said springs are more durable, and less liable to get out of repair, than springs secured together in the ordinary manner.

When the spring is beneath the axle, as shown in figs. 2, 4, and 6, my clamp is applied as follows: The top cross-bar *a* is provided with lips, which catch over the edge of the axle, and the bottom cross-bar, *b*, is provided with lips, which catch over the edges of the cross-plates, *e* of the clips D, so that both these cross-plates are effectually prevented from turning, and the spring is firmly held in position.

The spring B is provided, at one or both ends, with an oblong eye, *f*, one such oblong eye being sufficient on the springs, which are secured to the axles, but two being required on the cross-springs. By means of this oblong eye, the spring is free to stretch, which it inevitably does when pressed down by the load, and, in stretching, it does not exert a strain on its connections; whereas, if the eyes are both round, the spring produces an injurious strain on the parts connected to it at its eyes.

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

1. A clamp, A, composed of cross-bars *a b*, keys *c*, and wedges *d*, to act in combination with the clips D, substantially as and for the purpose described.

2. Providing the edges of the leaves of the spring with grooves or notches, to admit the edges of the keys *c*, substantially as and for the purpose described.

3. Providing the spring, at one or both ends, with an oblong eye, substantially as and for the purpose described.

JACOB SEBASTIAN.

Witnesses:

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