(No Model.)

J. HANSER.

VEHICLE SPRING.

No. 312,846. Patented Feb. 24, 1885.

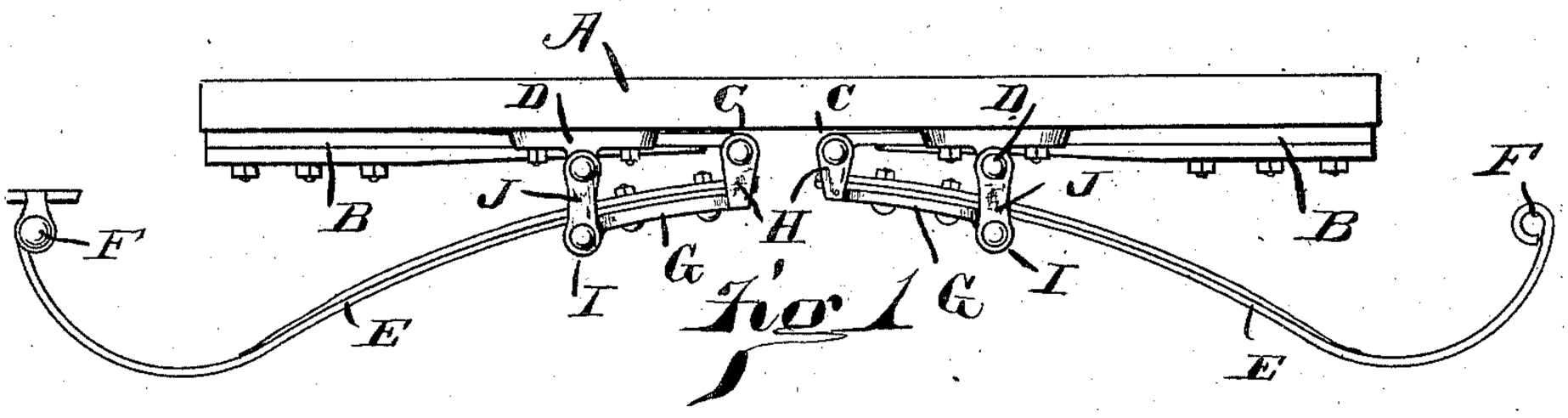

Fig. 1.

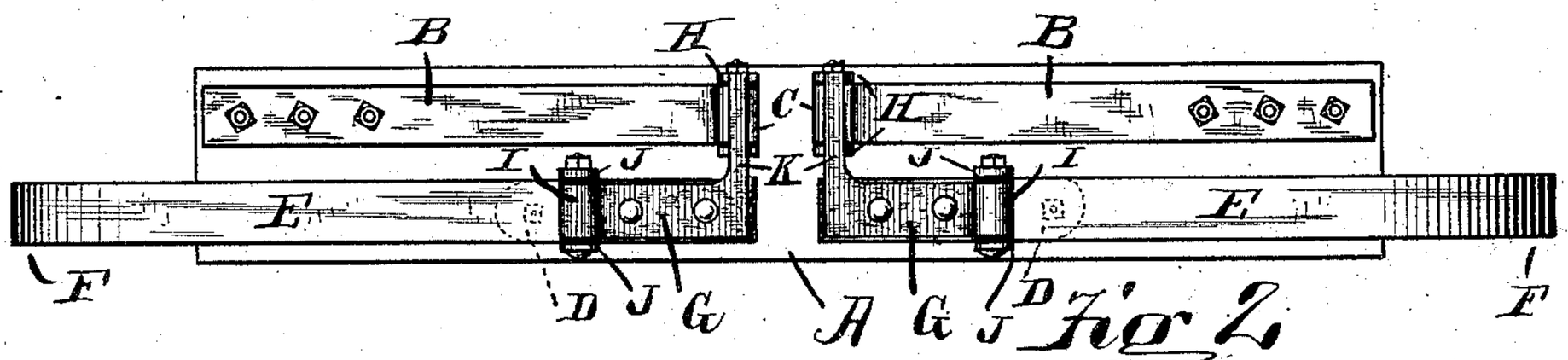

Fig. 2.

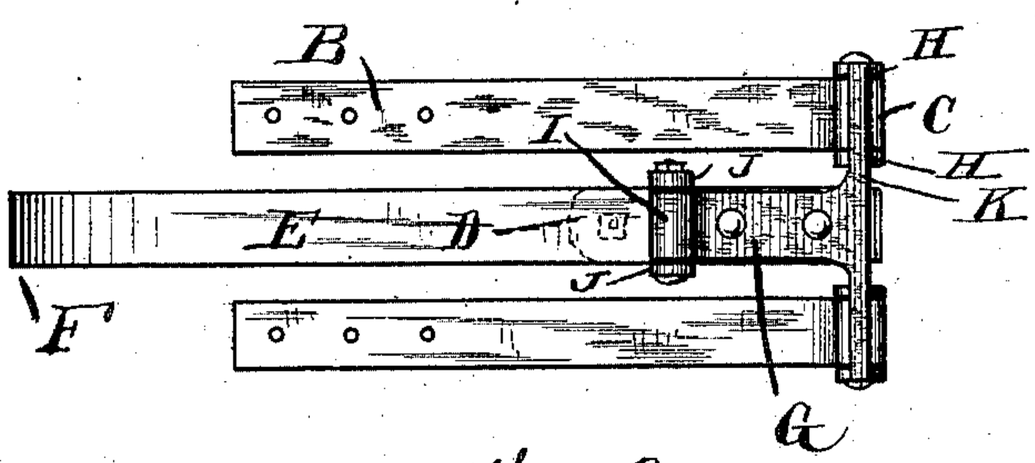

Fig. 3.

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JACOB HANSER, OF OXFORD, OHIO.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 312,846, dated February 24, 1885.

Application filed September 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, JACOB HANSER, of Oxford, Butler county, Ohio, have invented certain new and useful Improvements in Vehicle-Springs, of which the following is a specification.

This invention relates to improvements in the construction of springs for side-bar vehicles, and will be readily understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is an edge view of a spring-bar with my improved springs attached; Fig. 2, a bottom view of the same, and Fig. 3 a bottom view of one of the springs when constructed in double form.

In the drawings, A represents the usual spring-bar; B, a spring with its butt rigidly secured at the end of the spring-bar and set with its free end pointing inward, there being one of the springs attached at each end of the spring-bar; C, a pivot-eye in the free end of spring B; D, a fulcrum-casting rigidly secured to the spring-bar, alongside of spring B, near the free end of the spring, there being one at each spring; E, a lever reaching from the side-bar attachment to an attachment with the free end of the spring B; F, a pivot-eye at the outer end of the lever, where the same is to attach to its side bar; G, a plate rigidly secured to the inner end of the lever; H, lugs projecting upward from the plate, and engaging the eye C of the spring by means of a pivot-bolt; I, a pivot-eye formed with the plate G at the end nearest the side bar; J, a pair of links pivoted to the eye I and fulcrum-casting D, and serving as an oscillating fulcrum for the lever; K, an arm reaching sidewise from the plate G, to enable it to reach and engage with its spring.

The parts described are in duplicate, there being a spring, a lever, and a connecting device at each end of the spring-bar. The ends F of the levers are attached to the side bars in the usual manner, and the general application of the spring is after the usual manner, the spring-bar being secured to the bottom of the vehicle. When weight is applied above the spring-bar, the spring-bar descends, the levers E oscillate upon their swinging fulcrums, and the springs flexate. As the springs flexate they shorten, and as a consequence they tend to exert an end pressure upon the levers and to spread the side bars; but this spreading tendency is avoided by the tendency of the long part of the levers to shorten as the fulcrum descends. By thus locating the free end of the spring inward and supporting the levers by swinging fulcrums I am enabled to secure a peculiarly-admirable action of the springs, and to avoid all jerk and all side strain due to the end pull of the flexing members.

The springs may be formed of one or more leaves, as desired, and the levers may be rigid or flexible.

In practice I make the levers of two or more leaves of spring-steel, as shown in Fig. 1. For extra heavy vehicles each lever may be provided with a spring upon each side, as indicated in Fig. 3.

I claim as my invention—

In a vehicle-spring, the combination, substantially as set forth, of a pair of springs rigidly held at their butts and set in the same line, with their free ends pointing inward into near proximity with each other, a pair of levers disposed alongside the said springs, and having their inner ends pivoted to the free ends of the springs and their outer ends adapted to be pivoted to the side bar of the vehicle, fulcrums D, secured to the spring-bar over the levers, a pivot-eye upon each lever below said fulcrums, and links connecting said pivot eyes with said fulcrums.

JACOB HANSER.

Witnesses:
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