

(No Model.)

C. B. MORSE.  
SPRING WHIFFLETREE.

No. 308,425.

Patented Nov. 25, 1884.

Fig. 1.

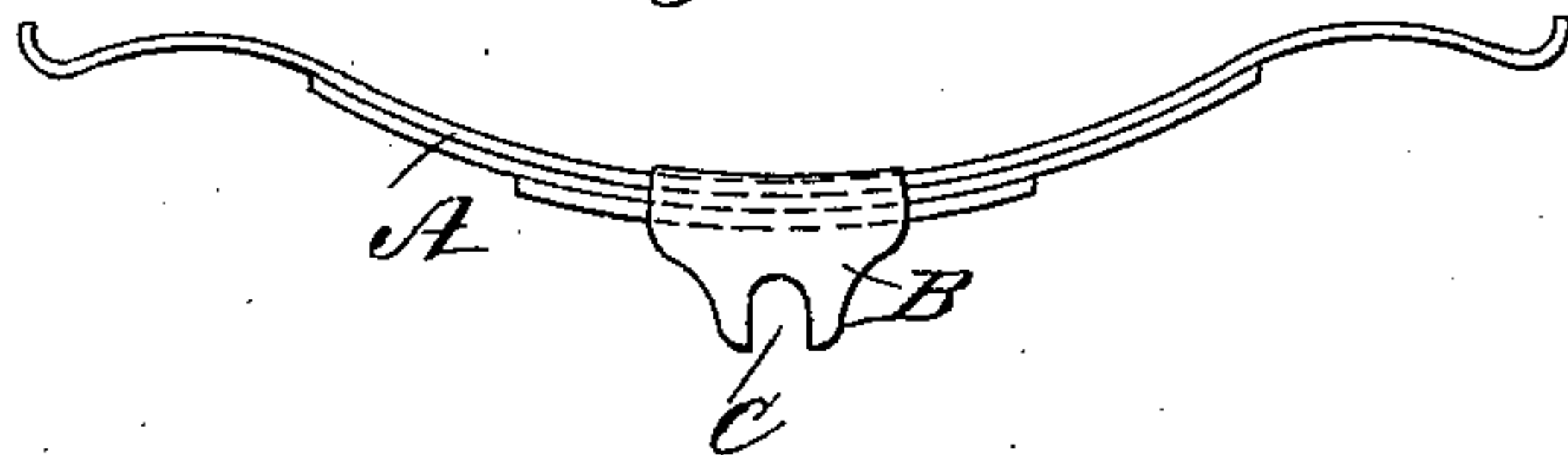


Fig. 2.

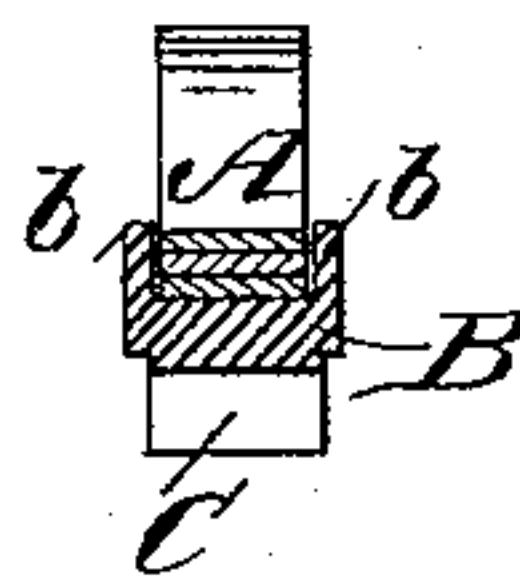


Fig. 3.

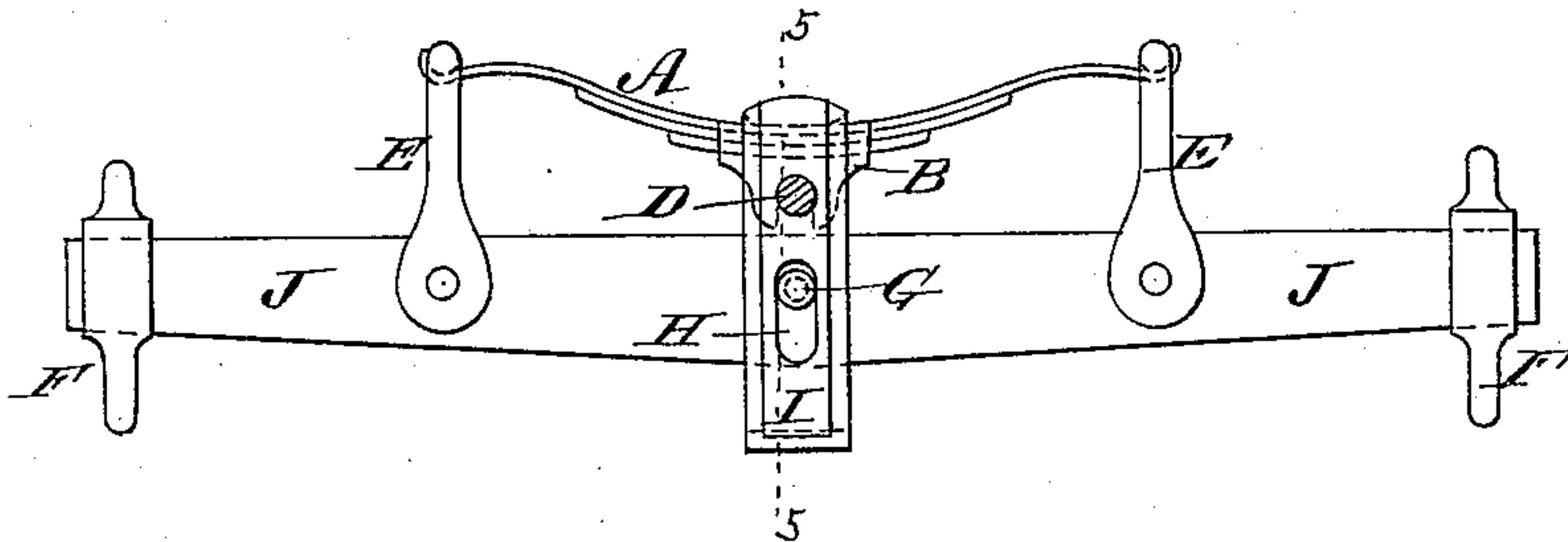


Fig. 4.

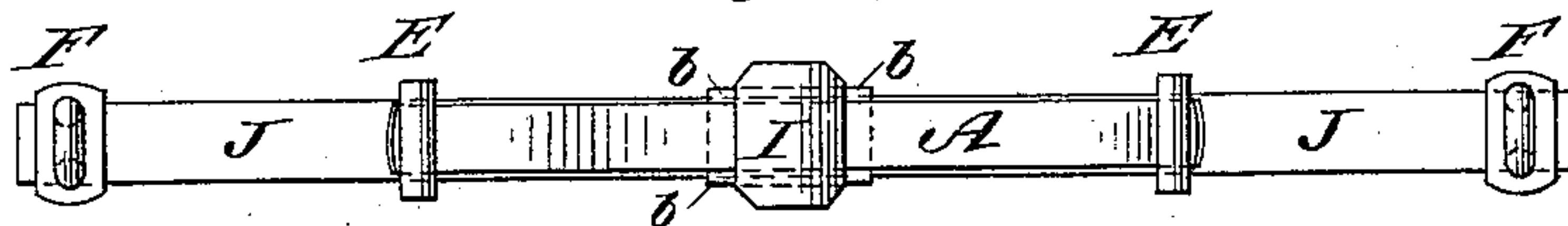


Fig. 5.

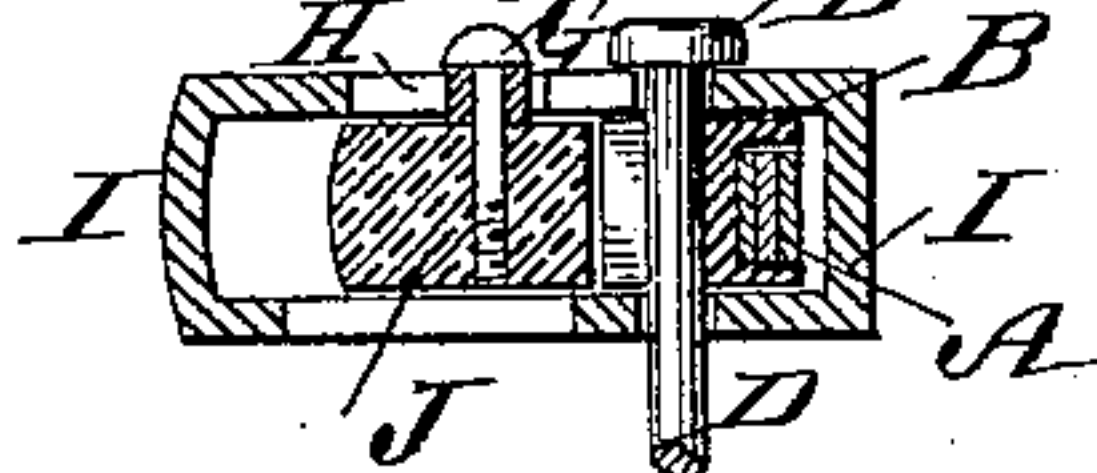


Fig. 6.

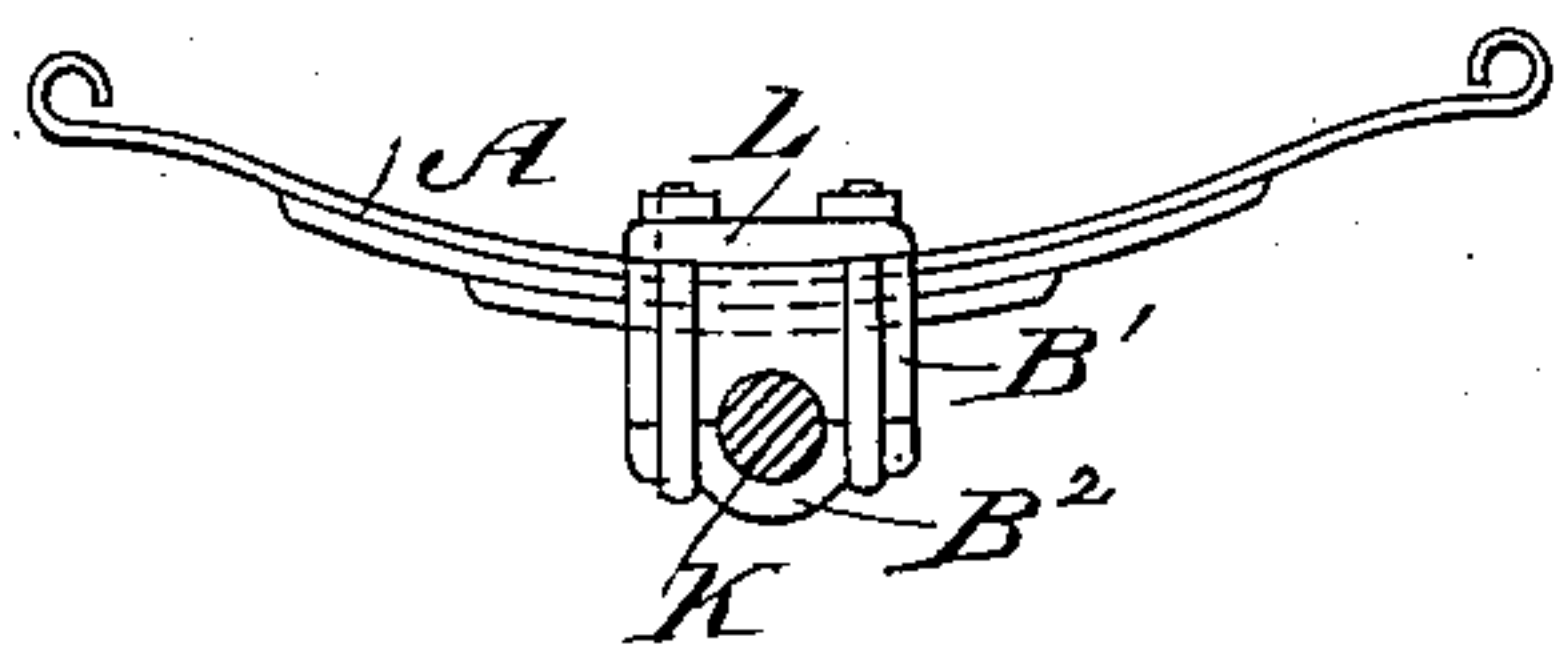
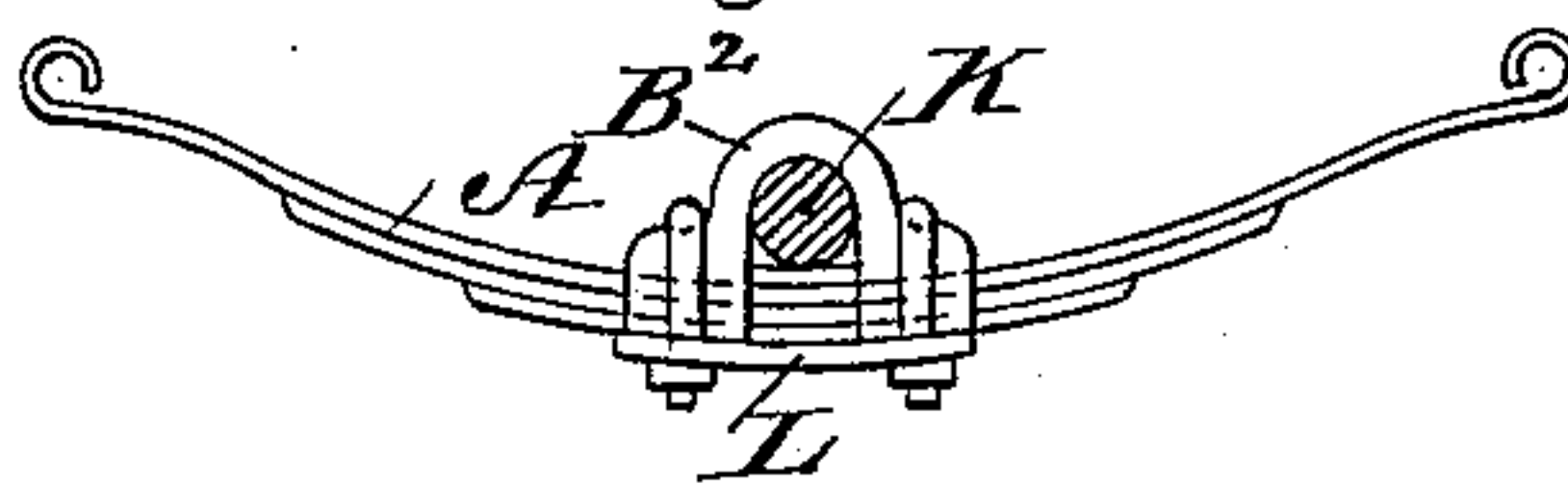


Fig. 7.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

CYRUS B. MORSE, OF NEW YORK, N. Y.

## SPRING-WHIFFLETREE.

SPECIFICATION forming part of Letters Patent No. 308,425, dated November 25, 1884.

Application filed March 5, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, CYRUS B. MORSE, a citizen of the United States, residing in the city, county, and State of New York, have invented certain new and useful Improvements in Whiffletrees, of which the following is a specification.

My invention relates to that class of whiffletrees in which the draft-strain is relieved or equalized by a spring connected to the clevis or draft-band and the whiffletree.

The object of my invention is to equalize the strain on each end of the spring, thereby preventing the breaking, weakening, or injuring of the spring by a sudden or unequal strain upon it when in use. I accomplish this by making the spring and its support or seat free to oscillate around its bearing. By the method at present in vogue the spring is made a rigid fixture with the draft-band, whereby when the limit of tension in the spring is reached its elasticity is injured if the spring itself does not break. My device allows the spring to have full play, renders its elasticity available to the utmost limit, and operates to check the tension or to control it, so as to prevent injury to the spring, as well as to relieve the strain on the motive power.

In the application of my device the spring and its support or seat may be applied to whiffletrees, axle-trees, and similar structures, as heretofore, with this modification. The spring and its support or seat is to be so connected that in its operation it will oscillate around the draft-bolt inside of the draft-band. It is not attached to the draft-band, but is held in place by the draft-bolt, that passes through the draft-band and connects the whiffletree to the wagon, car, or structure containing the load. The draft-band has longitudinal slots through it to admit of a bolt or pin with a revolving sleeve on it operating within such slot. The object of this pin is to keep the draft-band in a position central with the whiffletree, and at the same time without preventing the draft-band having a free movement around the draft-bolt, also permitting the whiffletree to have a free sliding movement inside the draft-band. I attain these objects by mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view of oscillating spring and seat. Fig. 2 is a central cross-section of the same. Fig. 3 is a view of the spring-seat and draft-band in position. Fig. 4 is a front view of the same. Fig. 5 is a transverse cross-section through the line 5 5 of Fig. 3. Figs. 6 and 7 are elevations of the oscillating spring and seat in position on axles of vehicles.

Similar letters refer to similar parts throughout the several views.

The spring A is provided with a central bearing block or seat, B, that is formed with a socket, b, in which the spring fits, and a recess, C, that receives the draft-pin D. The clevis or draft band I fits over the middle of the whiffletree J, and is provided with a slot, H, through which extends a headed bolt, G, carrying a friction-roller, G', whereby the hand is held in position on the whiffletree, and is free to have a transverse movement thereon. The draft-band is perforated for the draft-bolt D, which is shown in position in Fig. 5. The spring A extends through the draft-band, and its seat is pivoted on the draft-bolt D. Swing- ing links E connect the ends of the spring to the whiffletree. The whiffletree is provided with draft-clevises F, and is connected with the vehicle in the ordinary way.

In Figs. 6 and 7 the spring A is shown as provided with clips B' B<sup>2</sup> L, that permit it to oscillate around the axle K.

I am aware that it has been proposed to construct a whiffletree with a sliding draft-band, a spring centrally connected thereto, and swing- ing links to connect the ends of the spring to the whiffletree; but so far as I am aware a spring has never before been pivotally connected to a draft-band, and such an organization affords material advantages; but

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

1. The combination, substantially as set forth, of the whiffletree, the draft-band, and the spring pivotally connected with the draft-band, and having its ends connected with the whiffletree.

2. The combination, substantially as set forth, of the whiffletree, the draft-band, the spring pivotally connected with the draft-band, and the swinging links that connect the ends of the springs with the whiffletree.



3. The combination, substantially as set forth, of the whiffletree, the draft-band that moves transversely on the whiffletree, the spring pivoted to the draft-band, and connections between the ends of the spring and the whiffletree.
4. The combination, substantially as set forth, of the draft-bolt, the spring, and the seat formed with a socket in which the spring is secured, and a recessed bearing by which the seat is pivotally connected with the draft-bolt.

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