(No Model.)

R. J. SKILES.

VEHICLE SPRING.

No. 490,794. Patented Jan. 31, 1893.

Fig. 1.

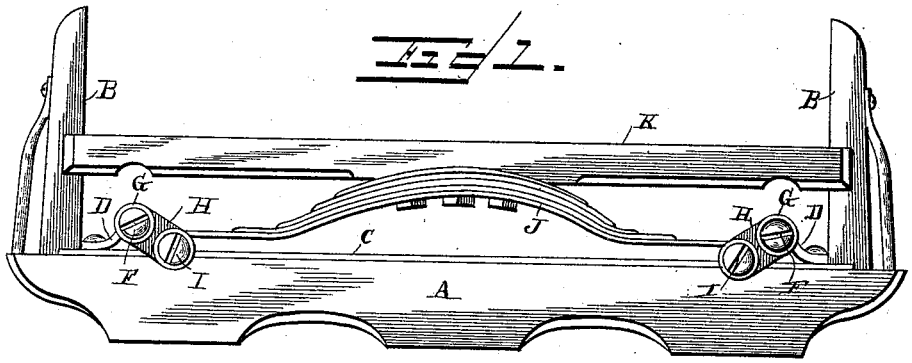


Fig. 2.

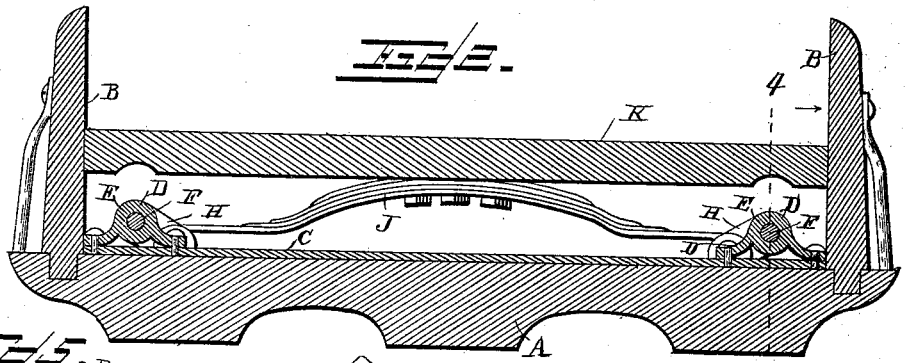


Fig. 5.

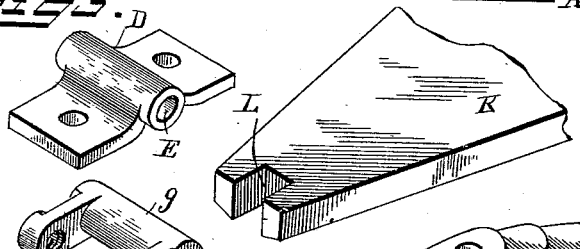
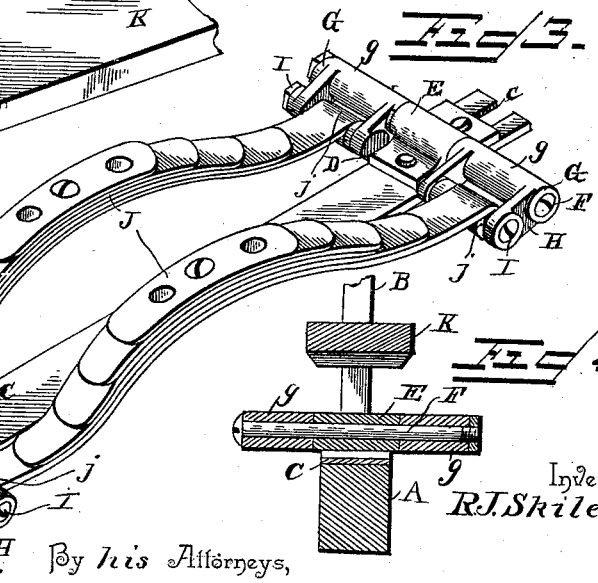


Fig. 3.



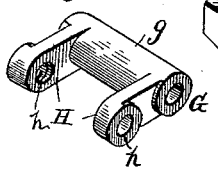


Fig. 6.

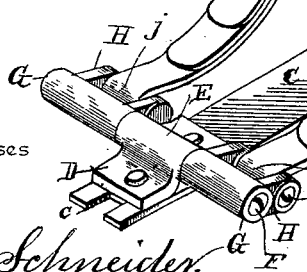


Fig. 4.

Witnesses

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Inventor

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By his Attorneys,

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UNITED STATES PATENT OFFICE.

RICHERD J. SKILES, OF PITTSBURG, PENNSYLVANIA.

VEHICLE-SPRING.

SPECIFICATION forming part of Letters Patent No. 490,794, dated January 31, 1893.

Application filed September 30, 1892. Serial No. 447,402. (No model.)

To all whom it may concern:

Be it known that I, RICHERD J. SKILES, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Vehicle-Spring, of which the following is a specification.

This invention relates to certain new and useful improvements in vehicle springs; and it has for its object to provide an improvement particularly in bolster springs, in which the entire spring attachment is so constructed as to be capable of ready attachment and detachment to and from the bolsters of ordinary wagons, so as to render the same available for use with and without springs as occasion may demand; also to provide an improved construction in spring attachments of this character, whereby undue side motion or twisting of the springs is avoided, and also to provide means for avoiding undue strain upon the springs.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

In the accompanying drawings:—Figure 1 is a front elevation of a wagon bolster, having a spring attachment thereon, constructed in accordance with this invention. Fig. 2 is a vertical longitudinal sectional view of the construction illustrated in Fig. 1. Fig. 3 is a detail in perspective of the spring attachment, illustrating the bed-plate separated from the springs. Fig. 4 is a detail transverse sectional view on the line 4. 4. of Fig. 2. Figs. 5 and 6 are details in perspective of one of the bearing brackets and shackles or stirrups, respectively.

Referring to the accompanying drawings; A represents one of the bolsters of a wagon, of ordinary construction, and which bolster is secured to the axles in any suitable manner. The said bolster A is provided at each end thereof with the opposite side posts or standards B, between which is placed the usual wagon-bed, and in the present invention, a metallic spring bolster plate C, is adapted to have the notched or recessed ends *c*, thereof, loosely engage said side posts or standards, so that the same can be removably seated on said bolster and rest flat thereon. It will be seen that while resting on the bolster A, the latter relieves the plate C of any strain, which might be placed thereon, while at the same time, the said plate carries the entire spring attachment so that it can be readily removed therewith from the bolster, when necessary. Bearing brackets D, are fixedly secured to opposite ends of the bolster plate C, and the same are provided with the integral cylindrical bearings E, which accommodate the horizontal shafts or pintles F, fitted therein and having their ends extending outward from the opposite ends of said bearings, in order to accommodate the opposite pairs of shackles or stirrups G. As illustrated, the shafts or pintles F, are removably mounted in said bearings, and therefore, said shackles or stirrups are removably mounted on the extended ends of said shaft. The shackles or stirrups G, each consist of tubular journals *g*, through which said shafts or pintles project, and which are therefore supported in direct alignment with the bearings of said bracket, and parallel arms H, extending from opposite ends of the tubular journals, to form a bifurcation, and provided with eyes or perforations *h*, in the ends thereof, which are adapted to receive the removable spring supporting bolts I. Said arms are normally at an angle of inclination in order to suspend the opposite parallel bow springs J, in the lowest possible position, and by using shackles or stirrups of proper length, the motion of the springs may be regulated and kept within any desired limit, thus preventing undue swinging or swaying of the load. The opposite bow-springs J, have looped ends *j*, which receive the bolts I, suspending the said springs from the inclined swinging shackles or stirrups G. The said opposite springs J, are arranged on opposite sides of the bolster A, and are embedded in and securely bolted to the bed-plate K, arranged above the bolster and said springs. The bed plate K, one being at each end of the wagon on corresponding spring attachments, as will be obvious, supports the wagon bed and yields, with the springs thereunder, to the motion and weight of such bed, and said bed plate K, is also provided with opposite end notches or recesses L, which loosely engage the side posts or standards B,

in order to provide for the ready removal of the entire attachment from the bolster, as will be readily apparent. It may be further observed, at this point, that the ends of the bed plate K, project over the bearing brackets D, so that in the event of the load in the bed of the wagon pressing the springs downward to the limit of the swing of said shackles or stirrups, the said bed plate will rest upon and contact with said bearing brackets and therefore relieve the springs from further strain.

From the foregoing, it is thought that the many advantages of having the entire spring attachment removable, and the particular arrangement of the various parts comprising such attachment, will readily suggest themselves to those skilled in the art.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:—

The combination with the bolster having side posts or standards at its opposite ends; of a bolster plate, removably seated on said bolster and provided with end notches or recesses loosely embracing said side posts or standards, bearing brackets fixedly secured to the opposite notched ends of said plate and provided with integral cylindrical bearings, horizontal shafts or pintles removably fitted in said bearings and having their ends extending outward from the opposite ends thereof, opposite pairs of swinging shackles or stirrups mounted on the extended ends of said shafts and each comprising tubular journals in a line with said bearings and parallel perforated arms extending from the opposite ends of the tubular journals and normally at an inclination, the opposite bow springs arranged on opposite sides of the bolster and having looped ends, spring supporting bolts removably coupling the looped ends of the springs within said shackles or stirrups, and the bed-plate supported on the springs and bolted thereto and provided with end notches or recesses loosely embracing the side posts or standards, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RICHERD J. SKILES.

Witnesses:

JAS. MCLAREN,

J. C. BOYER.