

(No Model.)

2 Sheets—Sheet 2.

J. SCHMEDINGHOFF.

SIDE BAR VEHICLE.

No. 262,250.

Patented Aug. 8, 1882.

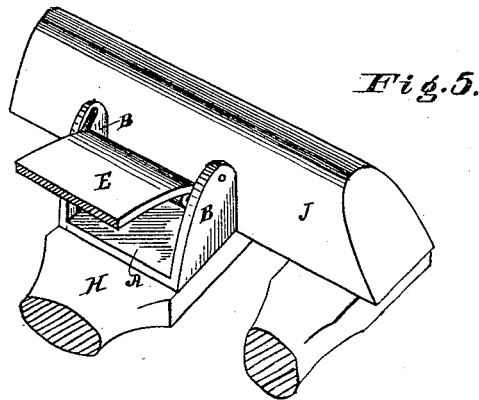


Fig. 5.

Fig. 2.

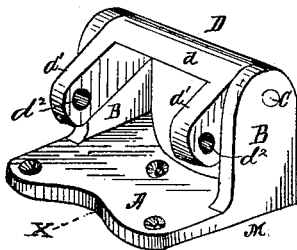
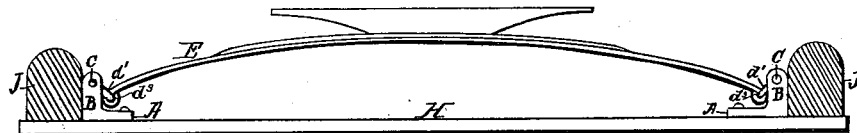


Fig. 3.

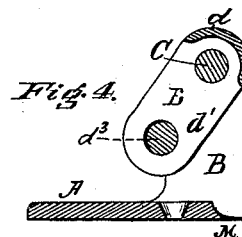


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOSEPH SCHMEDINGHOFF, OF CINCINNATI, OHIO, ASSIGNOR TO BAHMANN
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SIDE-BAR VEHICLE.

SPECIFICATION forming part of Letters Patent No. 262,250, dated August 8, 1882.

Application filed April 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH SCHMEDINGHOFF, of the city of Cincinnati, Hamilton county, and State of Ohio, have invented new and useful Improvements in Side-Bar Running-Gears, of which the following is a specification.

My invention is especially applicable to side-bar vehicles, and has reference to the arrangement and combination of the semi-elliptical springs and the running-gear of said vehicles in such a manner that no strain nor twist shall be imparted to the side bars from the flattening of the springs by the usual superincumbent pressure on said springs of the vehicle-bed and the contents of the latter, and so that the said side bars shall not be spread apart by the said pressure on the springs.

My invention also has reference to cheap, economical, and durable means for readily applying such springs to the said running-gear.

The nature of my invention and the several features thereof will become apparent from the following specification.

Referring to the drawings, Figure 1 is a perspective view of the frame of a side-bar running-gear embodying my invention. Fig. 2 is a transverse sectional elevation of the same, taken at the dotted line Y Y of Fig. 1, looking in the direction of the arrow shown in Fig. 1, the front axle and its adjacent parts being omitted. Fig. 3 is a perspective view of my device for attaching the semi-elliptic spring to the cross-perch. Fig. 4 is a sectional elevation of the latter, taken at the dotted line x x, shown in Fig. 3. Fig. 5 is a view in perspective of the attaching device shown in Fig. 3, the swinging connection to connect the bracket to the spring being of a form modified from that shown in said Fig. 3.

The attachment device or bracket M consists of a plate, A, projecting from which are upright pillars or studs B, which support by means of rod C the spring D, the rod C being supported by the studs, and the swing D being preferably located between said studs and swinging on the rod C. This swing consists of a transverse piece, d, connecting the two arms d' d', each provided with an opening, d².

The transverse piece d is shaped, as shown in Fig. 4, to allow rotation about rod C. Supported by the arms d', and resting in the openings d², is a rod, d³. (Shown in cross-section in Fig. 4.) Each end of the spring, or, when the spring has more than one leaf, then each end of the lower leaf thereof, is preferably located between the studs B, and the rod d³ passes through said end, as shown in Fig. 1. When the arms d' d' are attached to the transverse piece d the latter is made to embrace the rod d³.

The form of device just described, and shown in Fig. 3, is the one which I prefer; but the U-shaped swing shown in Fig. 5 falls within my invention, the latter swing being attached to the spring in any convenient manner.

The bracket M is secured in any suitable manner to the axle-bars K L, forming the ends of the running-gear, or, preferably, as shown, to special cross pieces or perches H, firmly attached to the side bars, preferably by shackles, bolts, or screws, &c., as shown, in the usual manner.

K indicates the rear axle, and L the forward axle-bar, connected to the front axle, N, by a flanchion or a shackle, n, and king-bolt p, as shown, or, when preferred, by a fifth-wheel or other equivalent device, allowing the axle to turn under the axle-bar.

For the purpose of strengthening and bracing the forward cross-perch, H, the braces m extend from the bolt p to the forward perch, being secured to the forward perch by screws or bolts, &c., and also suitably secured to the forward portion of the axle-bar, king-bolt, or fifth-wheel connection. In the present instance the forward ends of these braces are welded or otherwise united together, and secured to the forward axle by the king-bolt p or other suitable connection.

The rear axle-bar is also braced to the side bars in any suitable manner. A preferable mode is that shown, where a brace, t, secured to the rear axle-bar by bolts or screws, extends forward and is secured to the side bar by bolts or screws f. This brace is preferably formed with an extension, P, which serves as a rub-iron, which latter is suitably secured to the side bar by bolts or screws.

When desired a central longitudinal perch connecting the axle-bars and (when the cross-perches are present) passing preferably below the said cross-perches may be employed.

5 The operation of the various features of my invention is readily understood. As pressure is brought to bear upon the spring E the latter gives and throws the swing D toward the side bars, J. The amount of swing is slight,
10 but still sufficient to prevent the end of the spring bearing against the side bars and tending to force them apart. In this manner a semi-elliptical spring can be readily applied to a side-bar running-gear without twisting or
15 spreading or tending to press apart the side bars.

My invention is cheap and economical and durable, and is easily applied.

Another advantage of my invention is that
20 the semi-elliptic spring is less liable to break than when attached in the usual manner—first, because when being bent down the ends are allowed to spread apart, and, secondly, because when in going over some obstruction
25 in or on the road the weight is for a moment taken off the spring, and the spring and gear are then separated to their utmost extent. The swings allow the spring a free movement at the ends.

30 Another advantage of my invention over other arrangements of the semi-elliptical springs is that if one of the springs E should break the vehicle-body cannot fall any distance, nor be thrown out of line, nor slid from
35 off the running-gear.

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

1. In a side-bar vehicle, the combination of brackets M, swings D, transverse elliptic spring E, and the transverse perch H, substantially
40 as and for the purposes specified.

2. The combination of spring E, supporting-pieces A B, provided with swing D, and cross-perch H.

3. The spring-attaching device, consisting of
45 base A, studs B, rods C, swing D, and rod d^3 , substantially as and for the purposes specified.

4. The spring-attaching device consisting of base A, studs B, rod C, swing D, consisting of transverse piece d , and the two arms,
50 d' d' , substantially as and for the purposes specified.

5. The spring-attaching device consisting of base A, studs B, rods C, swing D, and the transverse piece d , connected to the arms d' ,
55 in combination with a semi-elliptic spring and the cross-bar, substantially as and for the purposes specified.

6. In combination with a side-bar running-gear, the cross-perches H, brackets M, swings
60 D, semi-elliptic springs, and braces m m between the forward cross-perch and the head-block or pivot-bolt p , substantially as and for the purposes specified.

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