

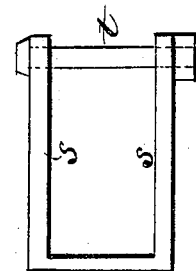
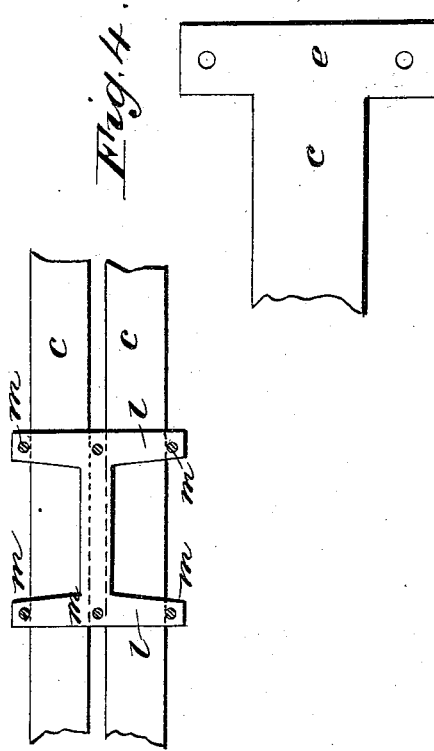
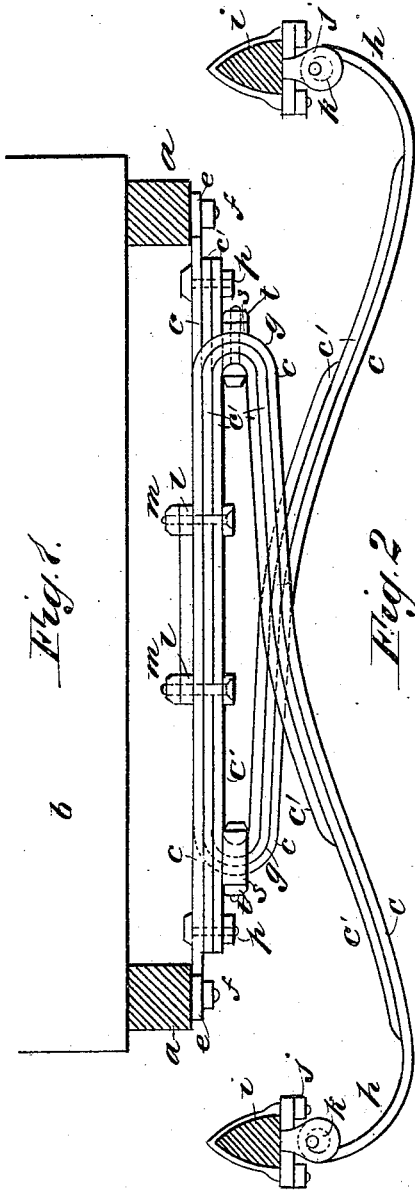
(No Model.)

2 Sheets—Sheet 1.

J. TAYLOR.  
SIDE BAR VEHICLE.

No. 298,516.

Patented May 13, 1884.



WITNESSES:  
*Francis McArdle.*  
*Co. Sedgwick.*

INVENTOR:  
*J. Taylor*  
 BY *Munn & Co.*  
 ATTORNEYS.

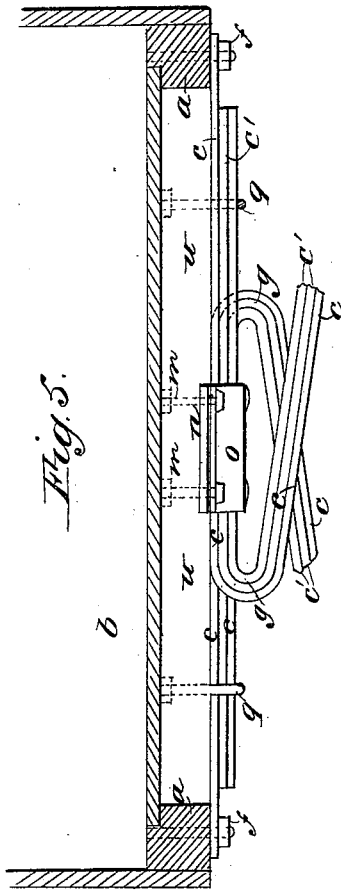
(No Model.)

2 Sheets—Sheet 2.

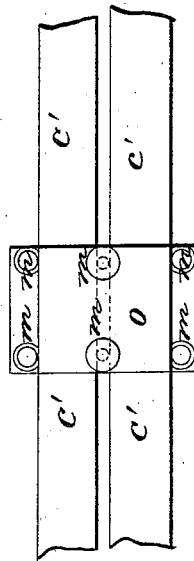
J. TAYLOR.  
SIDE BAR VEHICLE.

No. 298,516.

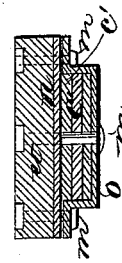
Patented May 13, 1884.



*Fig. 5.*



*Fig. 6.*



*Fig. 7.*

WITNESSES:

*Francis McDowell*  
*C. Sedgwick*

INVENTOR:

*J. Taylor*  
BY *Munn & Co*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JACKSON TAYLOR, OF NEWBERRY, SOUTH CAROLINA.

## SIDE-BAR VEHICLE.

SPECIFICATION forming part of Letters Patent No. 298,516, dated May 13, 1884.

Application filed January 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, JACKSON TAYLOR, of Newberry, in the county of Newberry and State of South Carolina, have invented a new and Improved Side-Bar-Wagon Spring, of which the following is a full, clear, and exact description.

This invention is an improvement in cross-springs for side-bar wagons; and it consists of two springs combined in one for each end of the wagon, the individual springs being attached at one end to the rockers of the body, respectively, and extended horizontally side by side nearly to the other rocker, where they are doubled back under said horizontal portion, and extended in a suitable curve to and are connected with the side bars on the same side of the body that the upper ends are connected to, and so as to be suspended from the side bars, and the horizontal portions of the springs are clamped together in a manner to stay each other, and so that the spring may be readily adjusted to adapt it for wider or narrower carriages, all as hereinafter fully described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my improved spring, and section of the rockers and side bars of the wagon. Fig. 2 is a plan view of a section of the spring. Fig. 3 is a plan view of a clamp by which the several plates of the spring are bound together at the bend. Fig. 4 is a plan view of the form of the end of the main plate by which the springs are attached to the rockers. Fig. 5 is a side elevation of the spring having a stiffening-bar, and a modified form of the clamp for connecting the two members of the spring. Fig. 6 is a plan of a section of the spring with the said modified form of clamp, and Fig. 7 is a transverse section of Figs. 5 and 6.

To each rocker *a* of the body *b*, I connect one end of the main plate *c* of a flat leaf-spring consisting of as many plates as desired, said plates *c* having a T-head, *e*, for making substantial connection with bolts or rivets *f*. From the point of connection with the rockers I extend the spring horizontally nearly to the other rocker, where I form a short return-bend,

*g*, from which I extend said spring back under the horizontal part beyond the rocker sufficiently to suspend the end, which has an upward turn, *h*, from the side bar, *i*, by a shackle, *j*, to which I prefer to connect the spring by an eccentric pivot, *k*, which plays laterally to accommodate the lengthening and shortening of the spring by the expansion and contractions of the curves *h*. I arrange the two members of the spring side by side, and connect the horizontal portions together at the middle by a clamp, which may consist of the two H-plates *l*, bolted together outside and between the two members of the spring with bolts *m*, as represented in Figs. 1 and 2, or of the flat plate *n* and the box-plate *o*, as in Figs. 5, 6, and 7. The short plates *c'* are to be bolted to the main plate *c* by bolts *p*, or clamped with a clip, *q*, as may be preferred, and said plates are to be clamped together at the bend *g* by a yoke, *s*, and a tightening-bolt, *t*, for properly staying them thereat. In some cases I propose to use a stiffening-bar, *u*, to the horizontal positions of the spring, said bar being bolted thereon by the bolts *m*, connecting the clamps *l* or *n o*, and by the clips *q*. The bar *u* will extend along the springs from rocker to rocker *a*, but will not be connected to said rocker. It will be seen that by loosening the bolts *m* and the clip *q*, when used, the two members of the spring may be shifted along each other, to adjust it for wider or narrower wagons, without altering the position or set of the spring. It will be seen that the bends *g* of the spring are extended beyond the center of the body from the side where the ends of the springs are connected, giving great length of range to the springs, which increases the elasticity. If the springs are to be used on a straight-bottomed body, the plates *c* may be inclined upward a little near the ends attached to the rockers; but if the body has a bottom that is raised at the ends, the spring-plates *c* will be made straight, as shown in the drawings. The springs are very nearly rigid from the points where they are attached to the rockers to where they are clamped together, and combine the united strength of the two members, thereby obviating all tendency of the spring and body striking together along these parts which are close to the body. It will be no-

ticed that when the springs are adjusted to fit a narrow carriage-body they are more elastic than when adjusted for a wide body, there being a greater length of spring from the point when the two members are clamped together to the bend *g* than when adjusted for a wide body. If the body is wide, the members are clamped together nearer said bends, which makes the spring more rigid, by which the spring is not only adjustable in length for any sized body, but is also adapted to the amount of weight it has to carry, supposing a wide body to carry proportionately more weight than a narrow one. When the bar *u* is employed, the elasticity of the spring will be less variable by the variations of its length.

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

1. The improved cross-spring for side-bar wagons, consisting of two members attached at one end to the rockers *a* of the body, respectively, extended therefrom toward and nearly to the other rocker and alongside of each other, and being therefrom bent backward and extended to and connected with the side bar on the same side of the body that the upper end is connected to, and said members connected together at the middle of the upper horizontal portions, substantially as described.

2. A cross-spring for side-bar wagons, consisting of two members connected, respectively, to the rockers *a* of the body, and extended nearly across the body and back to and connected with the side bar of the same side of the body that the upper end is connected to,

said members being connected together at the middle of the upper horizontal portions, and also connected to a stiffening-bar, *u*, arranged on said upper horizontal portion of said members, substantially as described.

3. The improved cross-spring for side-bar wagons, consisting of the two members, bent as at *g*, and respectively connected to the rocker *a*, and the side bar, *i*, of the same side of the body, and also arranged side by side in the upper part, and connected together thereat by a clamp device, the said members of the spring and the clamp device being constructed and arranged to enable the said members of the spring to be adjusted along each other for lengthening and shortening the spring, substantially as described.

4. A cross-spring for side-bar wagons, consisting of two members, bent as at *g*, and respectively connected to the rocker *a* and side bar, *i*, of the same side of the body, and also arranged side by side, and connected together in the upper part, the said members having a yoke, *s t*, clamping the plates of which the said members are composed together at the said bends *g*, substantially as described.

5. The combination of the upper parallel parts of the springs *c* with the two H-plates *l*, connected outside of and between the springs by the bolts *m*, substantially as set forth.

JACKSON TAYLOR.

Witnesses:

W. T. JACKSON,  
JNO. W. TAYLOR.