

(No Model.)

J. H. CLOYES.

TWO WHEELED VEHICLE.

No. 349,207.

Patented Sept. 14, 1886.

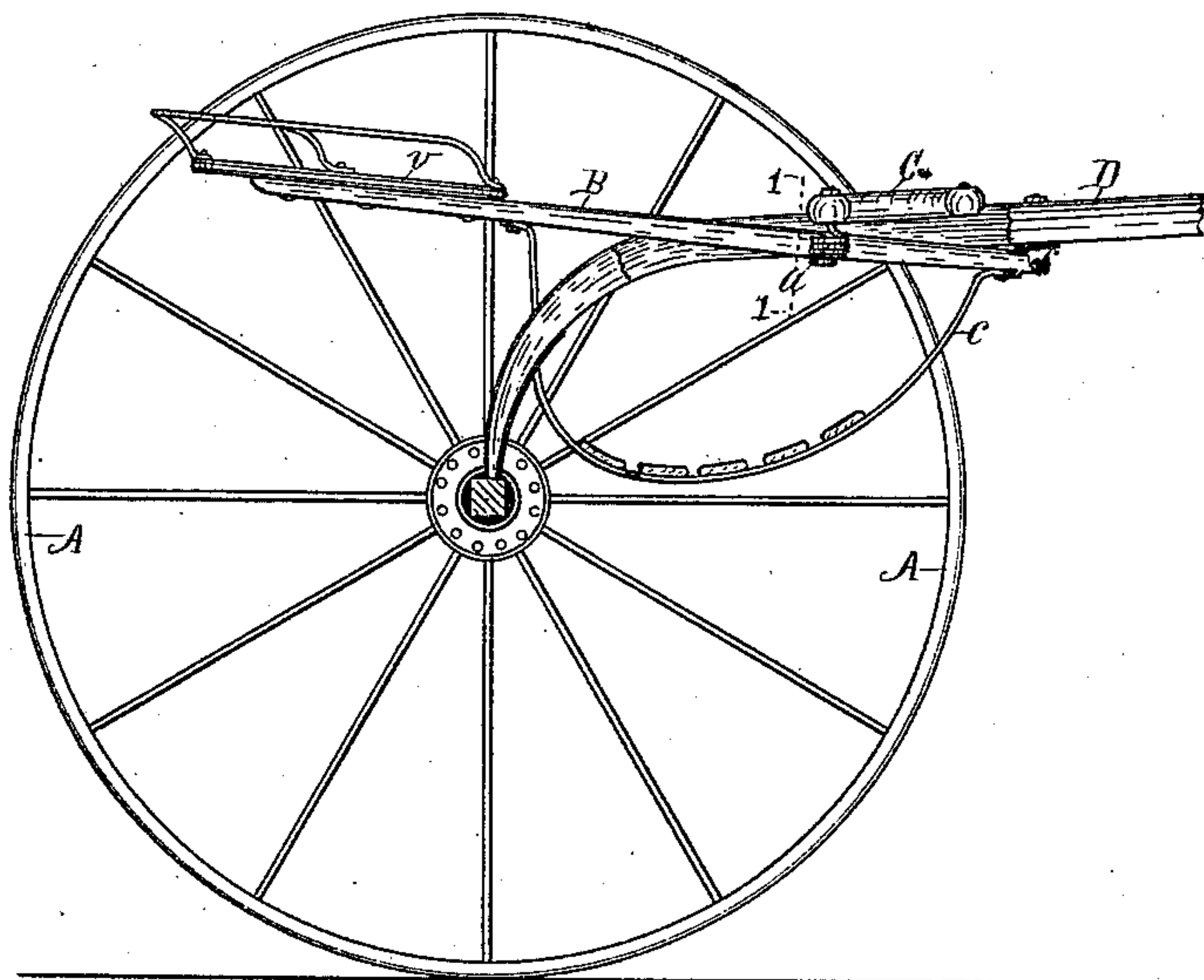


Fig. 1

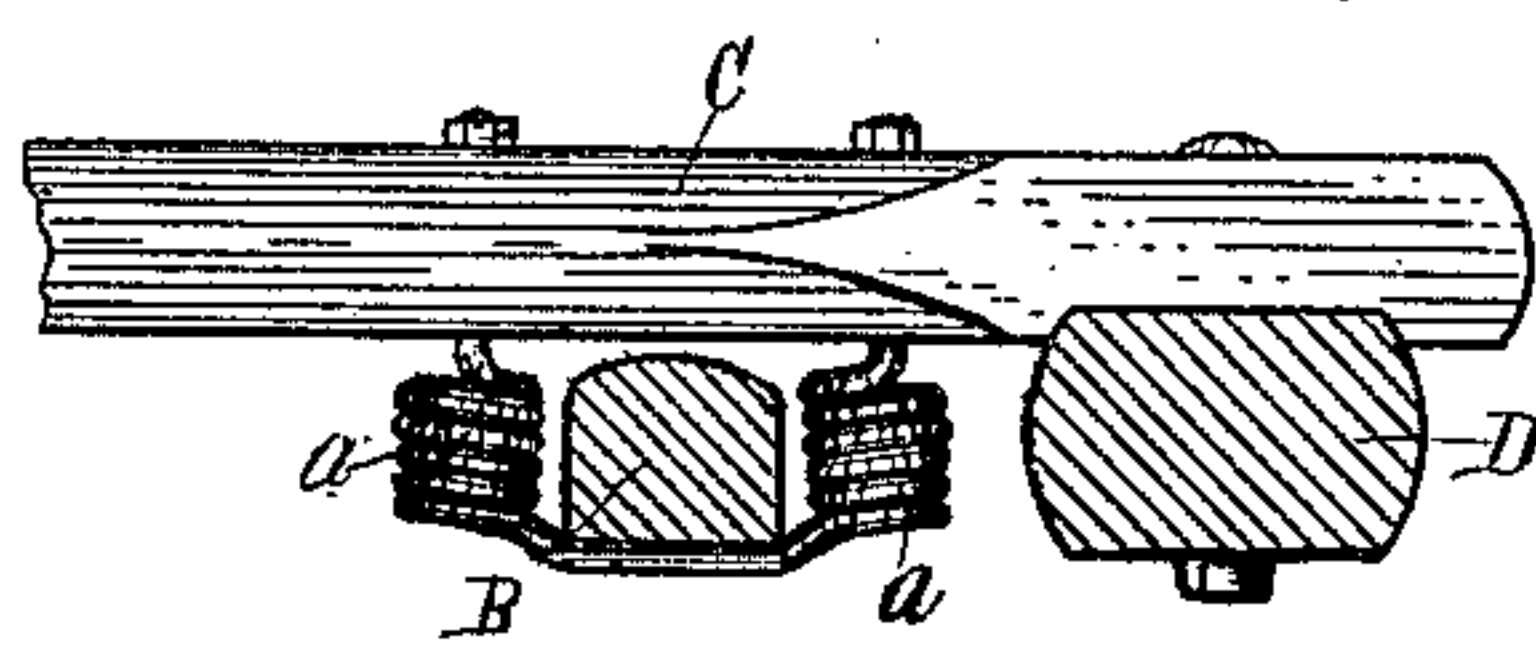


Fig. 2

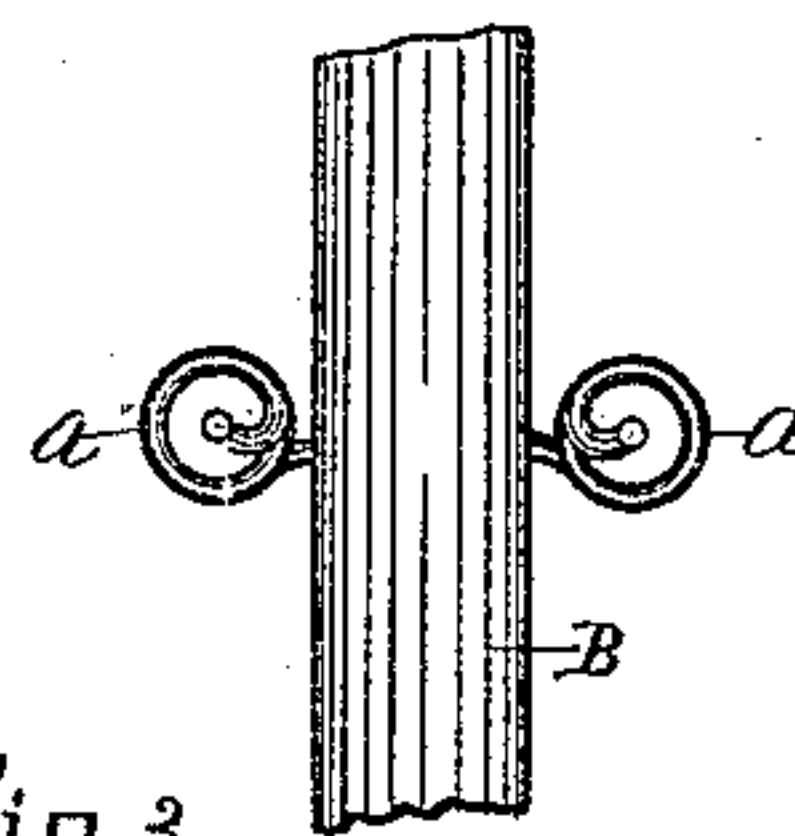
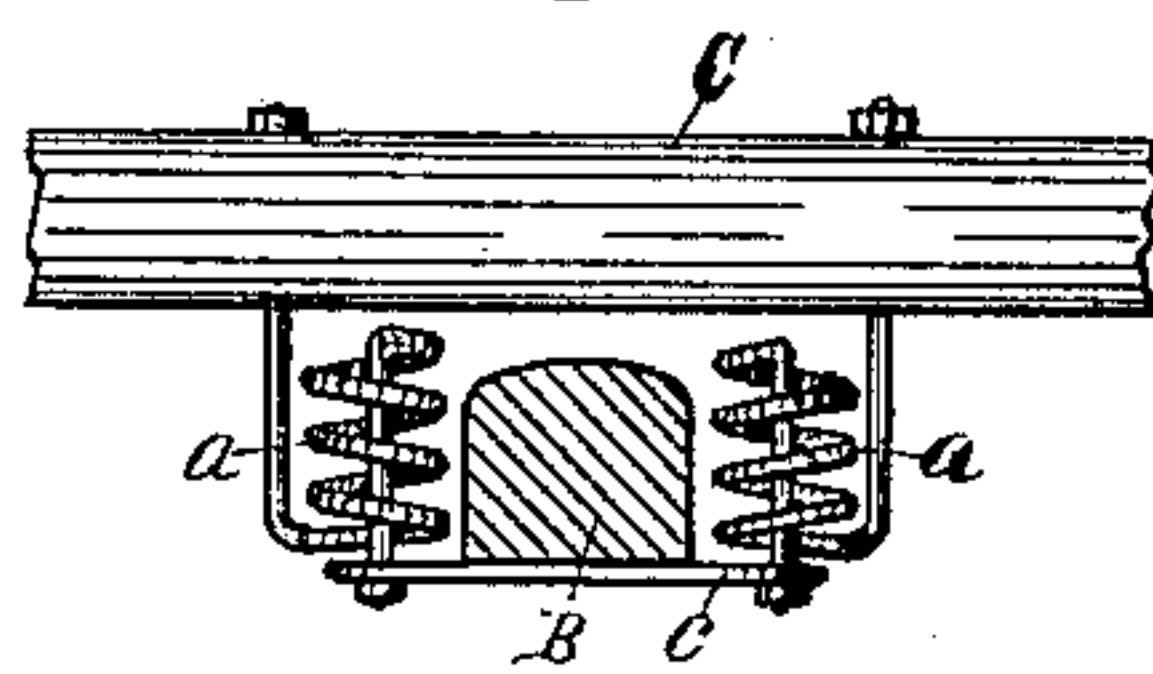


Fig. 3

Fig. 4



Witnesses.

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JAMES H. CLOYES, OF KALAMAZOO, MICHIGAN.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 349,207, dated September 14, 1886.

Application filed June 17, 1886, Serial No. 205,396. (No model.)

To all whom it may concern:

Be it known that I, JAMES H. CLOYES, a citizen of the United States, residing at Kalamazoo, county of Kalamazoo, State of Michigan, have invented a new and useful Two-Wheeled Vehicle, of which the following is a specification.

This invention relates to that well-known class of vehicles in which the seat-bars are pivotally attached at their forward end to the thills, and are suspended over the axle by springs or elastic supports.

The invention consists in the below-described elastic support as the "suspending means," and its combination with coacting parts of the vehicle.

In the drawings forming a part of this specification, Figure 1 shows a side elevation of a vehicle of the class referred to, in which my elastic support is employed. One wheel in this figure is removed and portion of the thill broken away; Fig. 2, an enlarged view with seat-bar in cross-section on line 1 1 in Fig. 1, looking from a point at the left of said figure; Fig. 3, a top view of lettered details in Fig. 2; and Fig. 4 is a view on line 1 1 in Fig. 1, but showing a change in construction from Fig. 2.

Referring to the letters of reference marked on the drawings, B are the ordinary seat-bars, having foot-rest *c*, and seat *v*, two of these bars, of course, being employed, one on each side, the construction here shown being duplicated on the opposite side of the vehicle. Heretofore these bars B, in some instances, and in other instances the flat metal springs supporting them, have been fulcrumed over rigid supports or bridges secured to the cross-bar C of the thills in a similar position to the elastic support here shown. By constructing the fulcrum-support for the bars B, (and on which supports the bars rest and rock, when their rear ends are carried up and down by the weight of the rider and the jolt of the vehicle,) as shown, the supports not only perform the function of the ordinary fulcrum, but in addition they impart the elastic effect to the seat-bars, and thereby dispense with

need of other springs. The supports are made of spring metal, and have a spiral, *a*, on each side of the seat-bar B, with a bar connecting the lower end of each spiral, and passed beneath the seat-bar. The spirals each side of the bars keep the seat-bars which lay loosely between them in place, the same as rigid bars in lieu of the spirals would. The upper end of the spirals, as Fig. 2, pass up through the cross-bar C, where they are threaded and held by nuts; or they may be otherwise secured to the thill cross-bar. The spirals *a a* may expand when under strain, Fig. 2; or, if preferred, may be arranged to contract, the latter plan being illustrated in Fig. 4. This is an equivalent to Fig. 2, because it constitutes an elastic fulcrum-support for the bars B to rest on, and has spiral springs on each side. Any other arrangement may be adapted, so long as the support has the spirals and a bar is attached to the spirals and passed beneath the seat-bar B. In Fig. 2 the support is made of a single piece of spring metal. In Fig. 4 the bar *c* beneath the seat-bar is made separate and secured on the ends of the spiral *a a*, which are turned over and passed down through the spirals. This construction of support is simple, effectual to perform several functions, thus dispensing with other parts, and it is so secluded from casual observation that the wonder is, how the seat-bars have an elastic effect or action, from seeing the vehicle drive past.

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

In a two-wheeled vehicle, the combination, with the thills and seat-bars, of substantially U form seat-bar supports having spiral spring sides, substantially as set forth.

In testimony of the foregoing I have hereunto subscribed my name in presence of two witnesses.

JAMES H. CLOYES.

Witnesses:

WM. McDONALD,

W. L. WHITEHEAD.