

(No Model.)

H. G. M. HOWARD & R. BRAYTON.

TWO WHEELED VEHICLE.

No. 363,520.

Patented May 24, 1887.

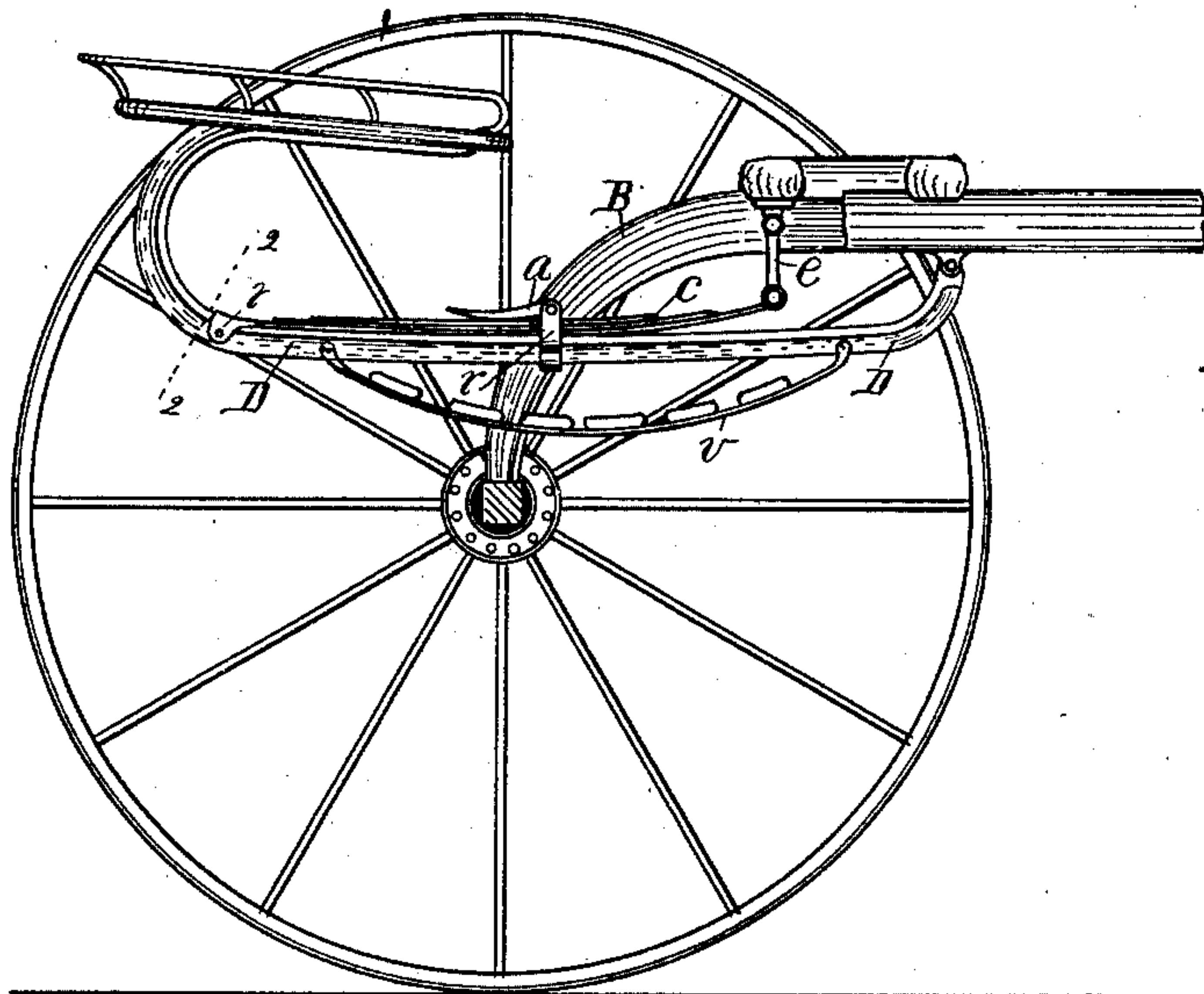


Fig. 1

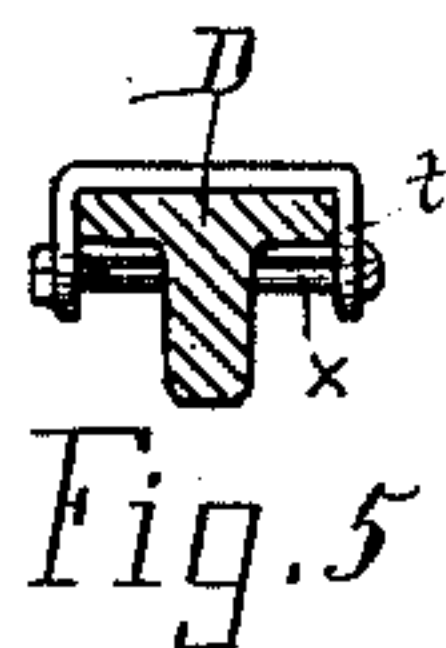


Fig. 5

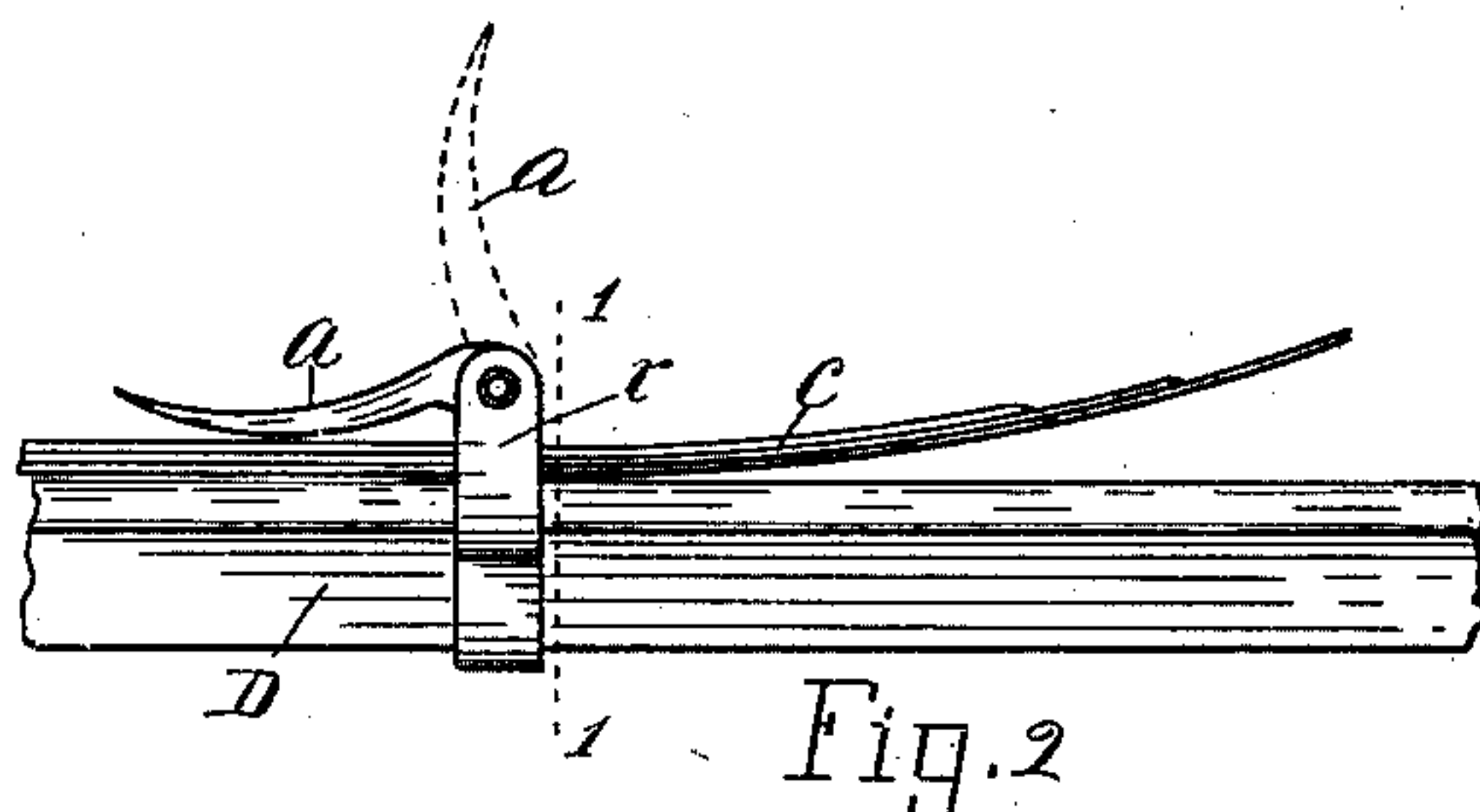


Fig. 2

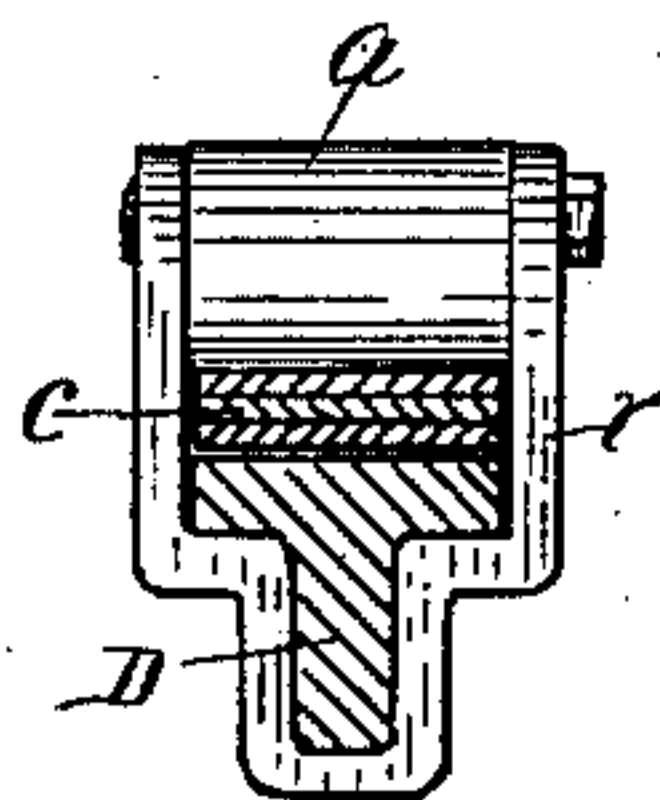


Fig. 3



Fig. 4

Witnesses,

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UNITED STATES PATENT OFFICE.

HENRY G. M. HOWARD AND RICHARD BRAYTON, OF KALAMAZOO, ASSIGNORS OF ONE-THIRD TO ARTHUR WOOD, OF GRAND RAPIDS, MICHIGAN.

TWO-WHEELED VEHICLE.

SPECIFICATION forming part of Letters Patent No. 363,520, dated May 24, 1887.

Application filed January 7, 1887. Serial No. 223,679. (No model.)

To all whom it may concern:

Be it known that we, HENRY G. M. HOWARD and RICHARD BRAYTON, citizens 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 two-wheeled vehicles having seat bars fulcrumed at the forward end to the thills or thill cross-bar; and it has for its object the improvements substantially as below described and claimed.

In the drawings forming a part of this specification, Figure 1 is a side elevation with one wheel removed; Fig. 2, lettered details from Fig. 1, enlarged; Fig. 3, a section on line 1 1 in Fig. 2, looking from a point at the right; Fig. 4, the eccentric-lever, enlarged, and below described; and Fig. 5 is an enlarged section on line 2 2 in Fig. 1.

Referring to the lettered parts of the drawings, B are the thills, and D the seat-bars, fulcrumed at the forward end in the ordinary manner, and preferably made of T metal. The ordinary foot-rest is shown at *v*.

The spring C extends from the lower portion of the rear bow of the seat-bars D forward on top of the bars to a point a little in the rear of the forward fulcrum of said bars, and is there attached to the jointed hanger *e*, suspended from the thill cross-bar. The rear end of the spring may be secured to the seat-bar in any suitable manner. An effectual plan is shown in Fig. 5, the end of the spring being provided with lugs *t* on each side, which take the bolt *x*, passed through the under flange or stem of the T-bar. Approximately midway between the ends of the spring is an adjustable clip, *r*, confining the seat-bar and spring. When T-bars are employed, the lower portion of the clip *r* conforms, as here shown, to the shape of said bar in cross-section, Fig. 3.

The eccentric-lever *a* is pivoted in the upper ends of the clip, as shown. The cam end of this lever—that is, the pivoted end—is so made in relation to its pivot and the handle that when the handle of the lever lies on the spring C, as in Figs. 1 and 2, (this being the position

when the spring is clamped,) the distance from the pivot obliquely downward to the right of a perpendicular to the periphery of the cam end will be slightly greater than the distance from the pivot to a point vertically below which contacts the spring. The object of this is to prevent the lever from being accidentally thrown up or raised. Fig. 4 shows such a lever. It will be observed in this connection, in order to be able to raise the lever to release the clip, that there is a little space between the spring C and the upper face of the bar D (when the spring is in its normal position, clamped by the lever) beneath the cam end of the lever *a*, the clip and lever being purposely constructed to this end. Thus, by raising up on the rear ends of the seat-bars D, thus taking the strain off from the springs, the lever can be raised to the dotted position in Fig. 2 to release the clip. Such a clip or spring-clamp is strong, reliable, and can be easily slid back or forward to control the stiffness or degree of desired spring action of the spring for one or two persons to ride.

The construction is alike on the other side of the vehicle. (Not here shown.)

Such an association of seat-bars, springs, and adjustable spring-clamps makes a cheap, conveniently-operated, and fine-appearing construction.

Having thus described our invention, what we claim is—

1. In a two-wheeled vehicle, the combination of the seat-bars, the springs on top and parallel therewith, secured at the rear end to the bars beneath the seat and suspended from the thill cross-bar at the forward end, and clips confining the seat-bars and springs between the ends of the springs, substantially as set forth.

2. In a two-wheeled vehicle, the combination of the seat-bars, the springs arranged and suspended at the forward end, as shown, and the adjustable clamps consisting of the clips and pivoted eccentric-levers, substantially as set forth.

3. The combination of the thills, the T-bars, the springs upon and parallel with said

bars, suspended at the forward end from the
thills, and having the lugs at the rear end, and
the bolts passed through them and the stem of
the T-bars, and the clips conforming to the
5 T-bars and provided with the eccentric lever,
substantially as set forth.

In testimony of the foregoing we have here:

unto subscribed our names in presence of two
witnesses.

HENRY G. M. HOWARD.

RICHARD BRAYTON.

Witnesses:

JOHN C. PERKINS,

WILL LEWEY RENCHLER.